DOCUMENT RESUME

ED 177 880 FL 010 590

AUTHOR Palmberg, Rolf; And Others
TITLE The Kuopio-Vaasa-Stockholm Tests. Perception and Production of English: Papers on Interlanguage. AFTIL, Volume 6.
INSTITUTION Abo Akademi (Finland).
SPONS AGENCY Academy of Finland, Helsinki.
PUB DATE 79
NOTE 76p.

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Cloze Procedure; College Students; Communicative Competence (Languages); *Comprehension; Cultural Factors; *English (Second Language); Error Analysis (Language); Finnish; *Language Proficiency; Language Research; *Language Tests; Second Language Learning; *Speech Communication; Spelling; Swedish; Vocabulary
IDENTIFIERS *Finland; Speech Rate; *Sweden

ABSTRACT

Three measure of English language proficiency (a partial dictation [Cloze] test, a text-reading and recollection test, and a story-telling test) were administered to three groups of college-level students (Finns, Swedish-Finns, and Swedes). The results are analyzed in several articles presented here: (1) "The Comprehension of Function Words and Content Words in Partial Dictation" by Hakan Ringbom, (2) "Speech Rate and Pauses in the English of Finns, Swedish-Speaking Finns, and Swedes" by Jaakko Lehtonen, and (3) "Investigating Communication Strategies" by Rolf Palmberg. In a concluding article, Ringbom summarizes some findings. Swedish Finns, being accustomed to encounters with a language other than their own, seem to develop comprehension of English most easily. Swedes exceed Finns in spelling errors, but Finns have a lower articulation rate; this reflects the differing emphasis on writing and speaking skills in two educational systems. The only difference in communication strategies among the three groups lies in the Swedes' greater use of paraphrase. These and other findings suggest a complex of factors affecting second language proficiency, including cultural conditions and relatedness of first and second language. (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED177880

THE KUOPIO-VAASA-STOCKHOLM TESTS

by

Rolf Palmberg
Hakan Ringbom
Jaakko Lehtonen

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Rolf Palmberg

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

FL010590

CONTENTS

THE KUOPIO-VAASA-STOCKHOLM TESTS

Rolf Palmberg, Håkan Ringbom and Jaakko Lehtonen:
A GENERAL INTRODUCTION 11

Håkan Ringbom:
ON THE COMPREHENSION OF FUNCTION WORDS
AND CONTENT WORDS IN PARTIAL DICTATION 21

Jaakko Lehtonen:
SPEECH RATE AND PAUSES IN THE ENGLISH OF
FINNS, SWEDISH-SPEAKING FINNS, AND SWEDES 35

Rolf Palmberg:
INVESTIGATING COMMUNICATION STRATEGIES 53

Håkan Ringbom:
THE ENGLISH OF FINNS, SWEDES AND SWEDISH
FINNS: SOME CONCLUDING REMARKS 77

Rolf Palmberg, Håkan Ringbom and Jaakko Lehtonen

A GENERAL INTRODUCTION

In September 1977, a test battery comprising partial dictation, text reading, and story telling was constructed in co-operation between the Finnish-English Contrastive Project at the University of Jyväskylä and the Error Analysis Project at Åbo Akademi. The tests were administered to, in all, 98 learners of English from three different language groups in two countries: 24 Finns (first-year commercial-college students from Kuopio: "ylioppilasluokka"), 37 Swedish-speaking Finns (i.e. Finland-Swedes) (first-year commercial-college students from Vaasa: "studentklassen"), and 37 Swedes (first-year Military Academy students from Stockholm). The Kuopio Commercial College was selected as being representative of a monolingually Finnish-speaking environment; the Vaasa Commercial College as representing a Swedish-speaking environment in Finland. The particular class from the Military Academy was (after consultations with experienced Swedish teachers) selected as having a level of proficiency very slightly below the national average for school-leavers. This was estimated to be the level of the commercial-college students in Finland.

The tests were administered to the learners in three places: in Vaasa in October 1977, in Kuopio in November 1977, and in Stockholm in February 1978.

In Vaasa and Kuopio the test arrangements were the following: the partial-dictation test was administered in a language laboratory. Each learner had a written text containing gaps (appendix 1). The learners heard a recording of the complete text twice. On the first hearing they were asked to listen only; on the second hearing to fill in the blanks in the text. They were encouraged to fill in something, even if they were not sure of what they had heard.

The learners were then asked to enter a small test room one by one. They were given a written, English text of

about 340 words (Fairbanks's "The Rainbow Passage": appendix 2), which they were asked to read on tape. They were then given a cartoon comprising a story ("Adam and Eve Quarrel": appendix 3), together with a summary of the contents of the story in their mother tongue (appendix 4). When they had read through the summary (the purpose of which was to make the narratives more homogeneous in their contents and length), it was put aside. They were now asked to communicate the story in English by all possible means (they were not, however, allowed to ask the experimentor for help), and it was pointed out that their main concern was the passing on of factual information, not the production of grammatically correct language. Having finished the English version, they were told to retell the story in their mother tongue. Both versions were recorded on tape.

In Stockholm the test arrangements were, for practical reasons, somewhat different. The text-reading and story-telling tasks were not performed and recorded individually, but in a language laboratory. They were administered immediately after the partial-dictation test.

Questionnaires distributed to and completed by the learners elicited, for example, the following information (table 1):

TABLE 1.

	Finns (n=24)	Finland-Swedes (n=37)	Swedes (n=37)
Attendance at schools not of mother-tongue medium. Number of 'yes' answers.	-	1 (one year in Finnish school)	-
Language(s) spoken at home. Number of learners.	all Fi	33 Sw 4 Sw+Fi[1]	all Sw
Average years of previous English studies.	7.78	7.89	8.54

1 The results of the four bilingual learners do not differ from those speaking Swedish at home.

TABLE 1. (Cont.)

	Finns (n=24)	Finland-Swedes (n=37)	Swedes (n=37)
Number of learners having visited an English-speaking country for a period longer than two weeks.	3	5	16
Average mark in English in the National Matriculation Examination (NME).[2] (Applies to Finland only.)	7.08	7.43	
Average teacher's mark in English on the School Leaving Certificate.	7.08	6.89	.92 (7.40)[3]

---

2 The NME marks are converted into one-digit data by the following conversion table:

NME mark	score
l	9
mcl	8
cl	7
b	6
a	5

This conversion table is not the same as that used by Sjöholm on p. 117, as the latter is used for statistical purposes only.

3 The original Swedish marks are given on a five-scaled grading, with 5 as the highest mark. The figures within brackets show these marks converted into marks comparable with the Finnish ones, where the scale is from 10 to 5, by the following conversion table:

original Swedish mark	corresponding Finnish mark
5	10
4	8.75
3	7.5
2	6.25
1	5

The purpose of the first test, the partial-dictation test, was to study the differences in English listening comprehension between the three groups of learners. In the paper dealing with the findings of the test (pp.13 - 25 in this volume), the differences are discussed in terms of different types of errors, i.e. errors in function words vs. errors in "difficult" content words and errors due to perceptional difficulties vs. errors due to faulty graphemic rendering of a correctly perceived Wordbild. The different ways in which the mother tongue of the learners influences the performance of the three groups is outlined.

The purpose of the text-reading and story-telling tests was to measure the differences in fluency of non-native learners reading English standard texts and producing spontaneous speech. The findings, with a description of the measuring device, are dealt with on pp. 27 - 43 in this volume.

The story-telling test also had another purpose, that of finding out what systematic devices different groups of learners use when they want to communicate a concept for which they lack the appropriate target-language word. A typology of such communication strategies was set up, and applied to the six target concepts from the story which had been selected for analysis. Although a small difference in strategy preference by the learner groups as wholes was found, strategy preference seems most likely to have been a question of proficiency level and personality, irrespective of learner mother tongue. The findings are presented in detail on pp. 45 - 67 in this volume.

APPENDIX 1: The Partial Dictation Test

Featherstone led me into his sitting-room. It looked comfortable, but it was a trifle ordinary. It had large basket arm-chairs covered with velvet and on the walls were a great many framed photographs; the tables were littered with papers, magazines and official reports, with pipes, yellow tins of straight-cut cigarettes and pink tins of tobacco. In (a row of shelves were untidily stacked) a good many books, their bindings stained with damp and (the ravages of white ants). Featherstone showed me my room and left me.

I had a bath (and changed and went downstairs). Featherstone, ready before me, mixed our drink (as he heard me clatter down the wooden staircase). We dined. We talked. The festival which (I had been invited) to see was the (next day but one), but before that Featherstone told me he had arranged for me (to be received by) the Sultan.

"He's a jolly old boy", he said. "And the palace is a sight for sore eyes".

After dinner we talked a little more. Featherstone put on the gramophone, and we looked at the latest illustrated (papers that had arrived) from England. Then we went to bed. Featherstone came to my room to see that I had everything I wanted.

"I (suppose you haven't any books with you)", he said."I haven't got a thing to read".

"Books?" I cried.

I pointed to my book-bag. It stood (upright, bulging oddly), so that it looked like a hump-backed gnome somewhat the worse for liquor.

"Have you got books in there? I thought that was your (dirty linen or a camp-bed or something). Is there anything you can lend me?"

"Look for yourself".

Featherstone's boys had unlocked the bag, but quailing before the sight that was then revealed had done no more. I knew from (long experience how to unpack it).

I threw it over on its side, (seized its leather bottom) and, walking backwards, dragged the sack away from its contents. A river of books (poured on to the floor). A look of stupefaction came upon Featherstone's face.

"You don't mean to say you travel with as many books as that? By George, what a snip".

He bent down and turning them over rapidly looked at the titles. There were books of all kinds. Finally (Featherstone picked out a) life of Byron that had recently appeared.

"Hullo, what's this?" he said. "I read a review of it some time ago".

"I believe it's good", I replied. "I haven't read it yet".

"May I take it? (It'll do me) for tonight at all events".

"Of course. Take anything you like".

"No, that's enough. Well, good-night. Breakfast at eight-thirty".

When I came down next morning the head boy told me that Featherstone, who had been at work since six, would be in shortly. While I waited for him I glanced at his shelves.

"I see (you've got a grand library) of books on bridge", I said.

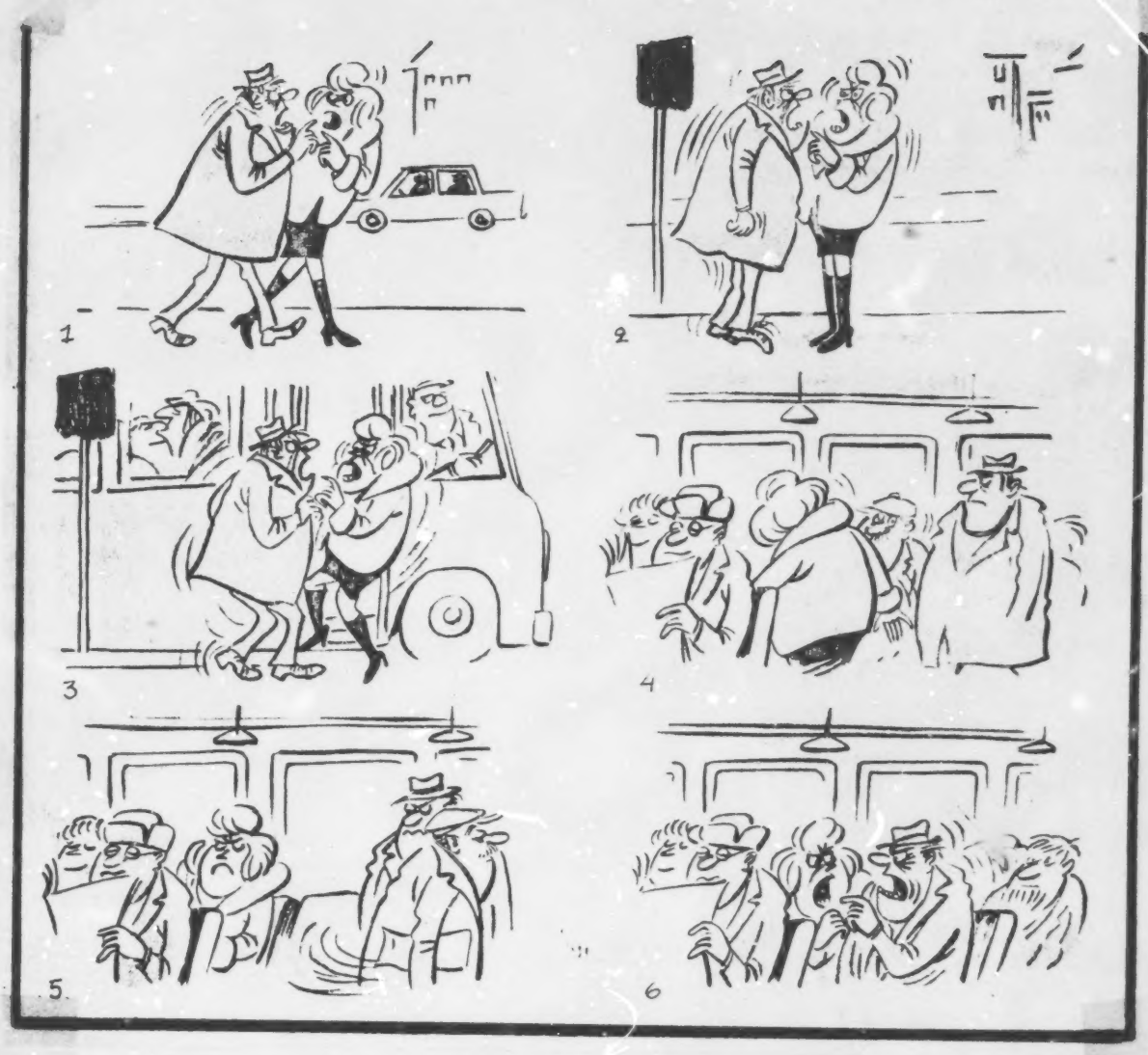
APPENDIX 2: The Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach, his friends say he is looking for the pot of gold at the end of the rainbow.

Throughout the centuries men have explained the rainbow in various ways. Some have accepted it as a miracle without physical explanation. To the Hebrews it was a token that there would be no more universal floods. // The Greeks used to imagine that it was a sign from the gods to foretell war or heavy rain. The Norsemen considered the rainbow as a bridge over which the gods passed from earth to their home in the sky. Other men have tried to explain the phenomenon physically. Aristotle thought that the rainbow was caused by reflection of the sun's rays by the rain. Since then physicists have found that it is not reflection, but refraction by the raindrops which causes the rainbow. Many complicated ideas about the rainbow have been formed. The difference in the rainbow depends considerably upon the size of water drops, and the width of the colored band increases as the size of the drops increases. // The actual primary rainbow observed is said to be the effect of superposition of a number of bows. If the red of the second bow falls upon the green of the first, the result is to give a bow with an abnormally wide yellow band, since red and green lights when mixed form yellow. This is a very common type of bow, one showing mainly red and yellow, with little or no green or blue.

APPENDIX 3: The Picture Story

"Adam and Eve Quarrel"



APPENDIX 4: The Picture Story - summaries

Finnish version

Aatami ja Eeva kinastelevat

Aatami ja Eeva, aviopari, kävelevät kinastellen jalkakäytävällä keskikaupungilla. He pysähtyvät linja-autopysäkille jatkaen kinasteluaan oranssinvärisen pysäkkikilven vieressä. Heidän odottamansa paikallisliikenteen linja-auton tultua pysäkille he nousevat siihen yhä riitaansa jatkaen. Linja-auton sisällä nainen pääsee ikkunan vieressä olevalle tyhjälle paikalle, mies jää myrtyneen näköisenä kädet taskussa seisomaan käytävälle. Naisen vieressä istuva päällystakkiin pukeutunut mies poistuu kuitenkin paikaltaan ja niin avioparin kiihkeä väittely jatkuu miehen päästyä istumaan vaimonsa viereen.

Swedish version

Adam och Eva grälar

Adam och Eva, ett gift par, går på trottoaren och grälar med varandra. De kommer till en busshållplats med en orangefärgad stoppskylt. När bussen som de väntar på kommer, stiger de på, fortfarande grälande. Inne i bussen får kvinnan en fönsterplats, medan mannen med sur uppsyn står i gången med händerna i fickorna. Mannen i överrock som sitter bredvid kvinnan lämnar emellertid sin plats, och så fortsätter paret sitt gräl när mannen har satt sig ner bredvid sin fru.

Håkan Ringbom

ON THE COMPREHENSION OF FUNCTION WORDS AND CONTENT WORDS IN PARTIAL DICTATION

A partial dictation test is primarily a test of listening comprehension.[1] Since it is a test where the marking concentrates on deviations from a given norm, an analysis of the scripts that takes into consideration omissions as well as errors should give a fairly accurate ranking of the students' comprehension of a dictated text. In marking, the word level has seemed the most practical one to work with, but a difficulty arises in assigning individual words to one or other of the groups "erroneous" or "correct". When comprehension is being measured, the latter group is best taken to include such words as are merely misspelt.[2] In practice, the distinction between "mere spelling errors" and comprehension errors is not always easy to maintain. My marking procedure can be illustrated by the assignment of different renderings of the word <u>received</u> to either one group or the other:

Mere spelling errors (Correct comprehension)	Incorrect comprehension
*Recieved	*Receive
*Resived	*Reseat
*Resieved	*Resited
*Recived	*Resieet
*Receved	
*Resevied	

Although there is an element of subjectivity in this undoubtedly generous marking, and the construction of a more finely graded scale might have been preferable, the number of correctly or nearly correctly comprehended words provides a fair idea of the receptive oral competence of the

---

1 For a more detailed analysis of another partial dictation test, see M. Sjöholm in this volume.

2 See Johansson, 1973.

students. The total number of words written down, as well as the percentage of correctly comprehended words, may also be of interest:

TABLE 1.

	Finns (n=24)	Swedish Finns (n=37)	Swedes (n=37)
Acceptable words, mean (max = 89)	47.1	66.3	55.7
Standard deviation (SD)	9.5	10.2	13.7
Max. - min.	66 - 29	82 - 39	82 - 19
Total number of words suggested (mean)	69.2	78.7	72.5
Percentage of correctly comprehended words	68.1	84.2	76.8

The pattern that emerges here is different from that of the speaking test[3] in that the Swedish Finns have the best results. Not only do they have the highest average of correctly comprehended words; both the total number of words written down and the percentage of correct words are larger than for the other two groups. The best Finn did not reach even the average result of the Swedish Finns, and only two Swedish Finns attained a lower figure than the Finnish average. The Swedes come in between the Finns and the Swedish Finns.

Previous analyses of university entrance tests at the Department of English, Åbo Akademi, have shown that partial dictation is the type of test, with the possible exception of reading tests,[4] where Finns are at the greatest disad-

3 Cf. Lehtonen in this volume.

4 An even greater difference in favour of the Swedish Finns than that occurring in the partial dictation test appears when the ability of reading aloud is tested (the sentence production test in 1977 (see table 2), a kind of tongue-twisting exercise, where the candidates were asked to

vantage compared with Swedish Finns. This can be seen from a table showing the results of those four entrance examinations which included a partial dictation test (table 2).

---

read aloud a difficult English sentence, and were judged by their production of individual sounds in that context). This sub-test, however, may well have had qualities that exaggerated the real differences in oral proficiency between the two language groups, especially as it was marked by a native Swedish-speaker (with near-native proficiency in English and Finnish), who, because of the natural tendency to react more strongly to interlanguage speakers of other language backgrounds than one's own, may have been subconsciously biassed in his marking, even though the mother tongue of each individual speaker was not known to him when marking.

Table 2 also shows a rather surprising discrepancy between the two translations into English in 1976 and 1978 (the same person did the marking). At least partly, the much better results of the Swedish Finns in 1978 may be explained by a change in the National Matriculation Examination in English. In 1976, the candidates could still choose between either a translation test from and into English or a combined test involving listening comprehension, reading comprehension and composition. In 1978 only the combined test (now also including a grammar section) could be taken. This change may well have influenced English teaching in the Swedish schools in Finland differently in that translation as a test form has not disappeared as completely from Swedish schools as it has from Finnish schools. The results from the National Matriculation Examination 1974-76, when the candidates had a choice, shows that the difference was consistently greater in favour of the Swedish Finns in the combined test than in the translation (cf. Ringbom, 1977a). This tallies well with the 1976 results of the entrance test, and from discussions with teachers it seems possible, even probable, that the change in English teaching at Swedish schools was less radically away from translation than at Finnish schools, where the teachers may well have felt the pressure of the National Matriculation Examination more strongly. To Swedish Finns, on the other hand, the national comprehension tests have proved quite easy, and at Swedish schools in Finland teachers may, more than their Finnish colleagues, have felt that they still have the time for using translations as tests and a method of teaching.

TABLE 2. Entrance tests tc the Department of English, Åbo Akademi.

1975	Finns (n=42)		Swedish Finns (n=58)	
Section (max.)	Mean	SD	Mean	SD
A. Sound recognition (110)	87.1	4.0	90.8	3.2
B. Partial dictation (76)	42.9	9.6	52.4	7.5
C. Cloze (156)	89.5	13.0	92.9	13.6
D. Grammar & Vocabulary (23)	14.5	2.9	14.9	2.5
E. Essay (80)	53.5	5.7	54.9	5.3
TOTAL (445)	287.4	27.4	305.5	22.0
1976	Finns (n=39)		Swedish Finns (n=42)	
A. Grammar (40)	3.7	5.8	23.9	5.0
B. Translation (Fi/Sw into Eng.) (50)	31.0	8.6	34.7	9.1
C. Essay (40)	24.3	3.7	26.1	3.1
D. Cloze (108)	54.2	10.7	57.4	10.8
E. Partial dictation (76)	30.4	7.0	39.6	7.9
F. Sound recognition (38)	30.0	2.8	32.2	1.8
TOTAL (352)	193.7	31.7	213.9	25.8
1977	Finns (n=41)		Swedish Finns (n=44)	
A. Vocabulary (100)	43.5	14.2	49.2	19.7
B. Cloze (50)	29.7	3.9	31.9	4.5
C. Partial dictation (100)	46.1	14.7	60.9	14.0
D. Translation (Eng. into Fi/Sw) (100)	63.3	19.9	76.9	13.5
E. Essay (100)	43.7	19.2	52.1	14.1
F. Sentence production (100)	62.5	20.7	85.0	4.5
TOTAL (550)	288.8	64.7	356.0	53.4

TABLE 2. (cont.)

1978	Finns (n=47)		Swedish Finns (n=47)	
Section (max.)	Mean	SD	Mean	SD
A. Cloze (107)	57.8	8.1	61.7	7.0
B. Partial dictation (74)	44.0	9.7	50.0	11.0
C. Translation (Fi/Sw into Eng.) (100)	45.7	15.5	65.9	15.3
TOTAL (281)	147.5	26.3	177.6	29.5

The general level of the candidates in these entrance tests is consistently higher than that of the learners whose test is being analysed here. Although there is no difference in the number of years spent on English at school, each year more than half of those applying for a place at the Department of English, Åbo Akademi, have got the highest mark (laudatur) out of a five-point scale in the National Matriculation Examination, and practically every candidate has got at least the second highest mark (magna cum laude approbatur). Our Commercial College students, on the other hand, are near the national average (cum laude approbatur). Even if the difference between the Finns and the Swedish Finns in the partial dictation section of the entrance test has been considerable, it generally remains at approximately the level of the SD, and is considerably smaller than in the present test.

The results of the present test thus confirms those of previous investigations that the lower the proficiency of the two groups compared (Finns and Swedish Finns) the greater is the difference in favour of the Swedish Finns. In earlier studies, one exception has, however, been found to the general advantage for Swedish Finns. This exception is English spelling, where tests of written English have shown that Finnish learners at a relatively advanced stage (entrance test candidates) seem to master the English orthographical conventions as well as and even better than

the Swedish Finns (Ringbom, 1977b). Assuming that a reasonably safe distinction can be drawn between comprehension errors and pure spelling errors in a partial dictation test, we can expect the Finns to have fewer "pure" spelling errors here.

Most of the errors in the present test were comprehension errors, and only a small number of the words occurring were merely misspelt.

The words where the total number of pure spelling errors for all three groups together is the largest (more than twenty), are the following five:

TABLE 3. Number of spelling errors out of correctly perceived words.[5]

Item	Finns	Swedish Finns	Swedes
37 Received	1/ 7	18/34	16/18
55 Linen	4/13	19/25	11/12
67 Seized	2/ 3	15/16	7/ 7
71 Poured	4/ 6	17/27	18/22
89 Library	7/20	9/37	20/29
TOTAL	18/49	78/139	72/88
per cent	36.7%	56.1%	81.8%

5 The following errors for the words in table 3 have here been counted as spelling errors that nevertheless show correct (or perhaps only near-correct) comprehension of the word:
Finns: *reseaved, *linin, *linnen, *linene, *linnean, *seezed (2), *pored (4), *libery (3), *libary (2), *liberary (2).
Swedish Finns: *recieved (6), *recived (5), *resived (3), *receaved (2), *resevied, *linnen (9), *linin (7), *linnin, *linnean, *linnon, *seezed (4), *siezed (2), *ceased (2), *seased (2), *sieced (2), *seesed, *seaced, *seazed, *poored (10), *pored (4), *pourd (2), *pord, *libery (3), *libary (3), *libere, *liberary, *librery.
Swedes: *recived (5), *resived (3), *recieved (3), *receaved, *recieyd, *reseived, *receved, *resieved, *linnen (11), *seased (3), *seezed, *ceased, *seesed, *seast, *poored (11), *pored (7), *libery (7), *libary (6), *libriary, *libarary, *lybery, *librery, *liberery, *liebrary, *liberary.

From this table it appears that the Finns have by far the greatest difficulties in comprehending these words (note, however, that the number of the Finns was only 24 as against 37 Swedish Finns and 37 Swedes). But once the word has been correctly perceived, it is the Swedes who have the greatest difficulty in finding the correct graphemic realization of the word, and the Finns make even fewer pure spelling errors than the Swedish Finns. Such a relation between Finns and Swedish Finns is in accordance with previously analysed frequencies of spelling errors in written tests.

If a chunk, or most of a chunk (omitted passage), in a partial dictation test consists only of frequent words, Finns do just as well as Swedes or Swedish Finns. Finns are used to careful listening also in unstressed syllables, since minimal phonological contrasts in unstressed syllables carry a great deal of meaning in Finnish. It is therefore not surprising that the only one of the 89 items where the Finns have a higher solution percentage than either the Swedish Finns or the Swedes is the 've in you've got a grand library.

Let us look at those sequences of three or more words where the Finns have a higher solution percentage than the Swedes for all of them. There are five such sequences in our test: (you) haven't any (books with you), as he heard (me clatter), you've got a (grand library), the ravages of (white ants), dirty linen or (a campbed).

TABLE 4. Solution percentages.

Item	Finns	Swedish Finns	Swedes
18 as	79.2	97.3	70.3
19 he	83.4	100.0	78.4
20 heard	83.4	97.3	75.7
45 have	87.6	91.9	81.1
46 n't	54.2	83.8	46.1
47 any	91.8	94.6	86.5
84 you	66.7	89.2	59.2
85 've	54.2	48.6	13.5
86 got	87.6	91.9	62.4
87 a	87.6	97.3	86.5
8 the	45.8	48.6	40.5
9 ravages	29.2	51.4	13.5
10 of	62.5	86.5	54.0
54 dirty	91.8	97.3	78.4
55 linen	54.2	67.6	32.4
56 or	66.7	81.1	57.0

The first three chunks of these should really pose little problem to any intermediate student of English listening carefully, and, in fact, the solution percentage generally ranges between 60 and 90 in all three groups for these items. The few errors are most probably explained as instances of careless listening rather than imperfect comprehension of the message. For the last two chunks, the ravages of and dirty linen or, it is easy to point to one word in each, which has obviously caused greater problems for the Swedes than for the Finns, ravages and linen, and the difficulty of these two words is also reflected in the immediately surrounding words. There is also a perfectly natural explanation why the words ravages and linen caused the Swedes greater problems than the Finns or Swedish Finns. The phonotactic structure of these words conflicts with that of Swedish spoken in Sweden, but not with that

of Finnish or Finland-Swedish in that the first syllable of the word, which receives the main stress, is open and contains a short vowel. 11 out of 37 Swedes doubled the consonant in ravages, substituting b for v usually arriving at some nonsensical word, whereas only two Swedish Finns and one Finn did the same.

The main reason, then, for a deviation from the "normal" pattern of difference between the three groups thus seems to lie in the phonotactic structure of a keyword that is clearly not very familiar to the students. The confusion is not limited to the word itself, but spreads to the immediate environment.

To an even greater extent this spreading of the confusion is true of those words that have posed especially great problems for the Finns. If an unfamiliar word does not conform to the Finnish phonotactic pattern, e.g. if the word ends or begins with a consonant cluster and/or has its stress on a syllable other than the first,[6] Finns have lost an important clue for discerning word boundaries (cf. Karlsson, 1977). Two such words are seized and received in the contexts seized its and to be received by, and table 5 illustrates the much greater difficulties for the Finns with the function words its and be in these contexts:

TABLE 5. Solution percentages.

	seized	its	be	received
Finns	12.5%	8.3%	12.5%	29.2%
Swedish Finns	43.2%	56.8%	86.5%	91.9%
Swedes	18.9%	64.9%	62.2%	48.7%

The differences between the three groups in solution percentages for the familiar words, its and be, are much greater than for the less familiar ones, seized and received.

6 Cf. Whitaker, 1976:90: "The perception of stress seems to play a specially important part in comprehension."

The fact that there is sometimes a very low solution percentage in function words does, of course, not mean that these high-frequency words would be difficult per se for the students. It only means that the function words posed problems in that particular context, and as soon as we get an especially low percentage of function words in one of the groups under investigation (low also compared with the average differences in solution percentage between the groups), we should examine the context in order to find what particular word or words might have caused the students of one group to go wrong proportionally more often than the others.[7]

It is certainly an interesting fact that the confusion caused to the Finns by an unfamiliar word with a phonotactic structure different from Finnish can be seen even more clearly in the surrounding function words. Let us now see whether this principle might also apply to M. Sjöholm's data in the paper in this volume. Selecting the individual items in the Sjöholm test that were the most difficult content words, i.e. where the solution percentage for both Finns and Swedish Finns was below 15%, we get the following table:

---

7 It may sometimes occur that the solution percentage for a phrase will be higher for a difficult content word than for the function word. This is the case with the noun phrase a campbed, where all three groups have a higher solution percentage for campbed than for a:

	a	campbed
Finns	0.0%	4.0%
Swedish Finns	2.7%	27.0%
Swedes	8.1%	18.9%

TABLE 6.

	Solution averages	
Item	Finns	Swedish Finns
3 conceive	3.3	0.0
27 apostle	11.7	14.8
52 portmanteau	6.7	4.9
59 bragged	5.0	11.5
61 Dawson	6.7	11.5

We can now test the hypothesis that the difficulty of the lexical items conceive, apostle, portmanteau, bragged, and Dawson would catch on to the immediate environment of these words much more for the Finns than for the Swedes. We get the following figures:

TABLE 7. Solution averages.

Item	Finns	Swedish Finns	Difference (average 10.2)
1 we	81.7	86.9	5.2
2 can	71.7	78.7	7.0
3 conceive	3.3	0.0	-3.3
4 of	13.3	19.7	6.4
24 advantage	60.0	86.9	26.9
25 of	46.7	82.0	35.3
26 the	35.0	67.2	32.2
27 apostle	11.7	14.8	3.1
49 sneaked	23.3	50.8	27.5
50 to	65.0	93.4	28.4
51 his	65.0	90.2	25.2
52 portmanteau	6.7	4.9	-1.8
57 he	91.7	100.0	8.3
58 'd	16.7	57.4	40.7
59 bragged	5.0	11.5	6.5
60 to	0.0	6.5	6.5
61 Dawson	6.7	11.5	4.8
62 about	23.3	50.8	27.5

A comparison with Sjöholm's table on p. 153 shows that the words in the immediate environments of these five difficult words make up eight out of the seventeen words which show the greatest difference in solution percentage between Finns and Swedish Finns. Of these adjoining words, it is also evident that besides conceive, portmanteau, apostle and bragged, advantage and sneaked also conflict with the Finnish phonotactic pattern. In all these words either the stress is on the second syllable or the word both begins and ends on a cluster of consonants. Thus Sjöholm's data also support the explanation that when an English word poses problems to Finnish speakers, these problems are even more clearly reflected in the interpretation of the immediate environment of the word than in the word itself.

Speakers of Swedish find the process of inferencing easier, and are perhaps able to use a shorter time for this process, so that they also find the time to cope with the immediate environment better than the Finns, even if they, too, have problems with individual words.

BIBLIOGRAPHY

Johansson, S. (1973). Partial Dictation as a Test of Foreign Language Proficiency. Swedish-English Contrastive Studies, Report No. 3. Lund University.

Karlsson, F. (1977). "Morphotactic structure and word cohesion in Finnish". In Contrastive Papers (eds. K. Sajavaara & J. Lehtonen). Jyväskylä Contrastive Studies 4. University of Jyväskylä: 59-74.

Lehtonen, J. (1979). "Speech rate and pauses in the English of Finns, Swedish-speaking Finns, and Swedes". In this volume.

Ringbom, H. (1977a). "Finlandssvenskarna och engelskan". Hufvudstadsbladet 17.3.

Ringbom, H. (1977b). "Spelling errors and foreign language learning strategies". In Papers from the Conference on Contrastive Linguistics and error analysis Stockholm & Åbo 7-8 February 1977 (eds. R. Palmberg & H. Ringbom). Meddelanden från Stiftelsens för Åbo Akademi Forskningsinstitut nr. 19: 101-111.

Sjöholm, M. (1979). "Partial dictation as a testing device: an analysis with special reference to the achievement made by Swedish- and Finnish-speaking applicants for English, 1975". In this volume.

Whitaker, S. F. (1976). "What is the status of dictation?". Audio-Visual Language Journal 14:2, 87-93.

Jaakko Lehtonen
Department of Phonetics and Linguistics
University of Jyväskylä

SPEECH RATE AND PAUSES IN THE ENGLISH OF FINNS, SWEDISH-SPEAKING FINNS, AND SWEDES

Speech rate and pauses have recently been examined from various points of view. They are central variables in the testing of speech processing and constraints upon it both in the production and perception of speech. Phonetic evidence for different syntactic theories and hypotheses has been sought in pauses; pauses and the tempo of speech are traditional variables in studies where the discourse between a psychiatrist and his patient is analysed, as well as in those contrasting normal and pathological speech, and in studies where the evaluation parameters of fluent and non-fluent speech are defined.[1] Speech rate and pauses are central variables from the point of view of foreign language teaching as well. Too fast a speech rate, and, above all, the lack of pauses or syntactically inappropriate pauses can be fatal to the understanding of the student's foreign language (see e.g. Johnson & Friedman, 1971, Eggermont, 1974). On the other hand, it appears that interference from the student's mother tongue even affects pausing and the rate of speech, and that the level of the students' oral skills in a foreign language can to some extent be expressed by figures indicating the rate of speech and the percentage of pauses (cf. Lehtonen, 1978, Raupach, 1978).

This paper deals with the speech rates and pauses of three groups of informants who have studied English as a foreign language: 24 Finnish-speaking students from Kuopio

---

1 For extensive bibliographies and further information, see Mahl & Schultze, 1972, Rochester, 1973, and, the most recent and thorough bibliography, 'Pausological Implications of Speech Production', compiled by Appel, Bauer, Dechert, & Raupach, 1978.

Business College, 20 Swedish-speaking informants from the Business College of Vaasa, a bilingual town in Western Finland, and 37 students from the Military Academy in Stockholm. Thus, the number of informants is slightly restricted as compared with those of Ringbom and Palmberg, whose papers are based on the same test material. The lower number of informants was caused by the poor quality of some of the tape-recordings, which meant that the acoustic analysis procedure of the present study could not be applied to them. This paper also draws on material from a study dealing with phonetic and linguistic parameters of fluency of speech, which is being carried out by the Finnish-English Contrastive Project (Dept. of English, University of Jyväskylä).

This paper deals only with data gathered by means of equipment designed for an automatic analysis of speech rate and pauses. Therefore, parameters relating to the structure of the text analysed, such as false starts, spoonerisms, imprecisions, filled pauses, lexical density, type/token ratio, sentence and clause length, and subordination index, which are among the classical parameters used to describe fluency of utterances, have not been taken into account (cf. Sajavaara & Lehtonen, 1978). Neither has pausing been analysed functionally by classifying the physical (unfilled) pauses into permissible or acceptable juncture pauses and into hesitation pauses which cause disfluency. Accordingly, the occurrence of filled pauses and pause fillers (such as vocalization ~~ə:ə:ə:~~, or well, now, you see, I mean, etc.) in the speech of the different groups of informants have not been analysed systematically. Phonetic transfer of the mother tongue to the English of the informants is not touched on at all. In each group, interference caused by the mother tongue is indisputable, and the 'foreign accent' of the informants' pronunciation caused by the mother tongue is characteristically different in the three test groups.[2]

The rate of speech. As already stated in the general introduction, the informants read the whole of Fairbanks' Rainbow Passage (Fairbanks, 1960:127) from a sheet of paper, and narrated, both in the mother tongue and in English, the story of some cartoons presented to them. The passages which were read can be compared with each other well, with reference to both the absolute amount of time used for reading, and with reference to reading speed, as counted per time unit. The reading times for the Rainbow Passage in the different groups were as follows: Finns 201 sec (standard deviation 29), Swedish-speaking Finns 178 sec (SD=22), Swedes 172 sec (SD= 28), British 129 sec (SD=14), and Americans 122 sec (SD=18). The corresponding relative values can be found in table 1. If these figures are set against Fairbanks' (p. 115) rating scale, the groups of native speakers obtained the rating 'satisfactory' and 'excellent', both the Swedish speaking Finns and the Swedes obtained the rating 'too slow', and the Finns remained far below the bottom of the scale.[3] In a similar experiment (Lehtonen, 1978), Finnish-speaking university students of English obtained a result (c. 140 wpm) which would also be rated 'too slow' on the Fairbanks' scale. It should be remembered here, that this scale is only valid for the Fairbanks' standard text. Some other texts may require a considerably slower rate of reading because of a higher degree of conceptual difficulty or heavier syntactic constructions, while others might require a faster one.

---

2 For typical 'errors' made by Finns in the pronunciation of English, see Suomi, 1976; Lehtonen, Sajavaara & May, 1977; Lehtonen & Sajavaara (eds.), 1979.

3 The Fairbanks' rating scale as a whole is:

130-c.140 wpm	= too slow
c.140-c.150 wpm	= doubtful
c.150-c.160 wpm	= satisfactory
c.160- 170 wpm	= excellent
170-c.180 wpm	= satisfactory
c.180-c.190 wpm	= doubtful
c.190---	= too fast

(wpm = words per minute)

The informants' free delivery of speech could not be compared in relation to the total speaking time as the stories produced by individual informants varied greatly in length. The groups also differed in the time used for spontaneous speaking, which may have been due to differences in the test situation, and probably also in the instructions given to the informants (the tests in Kuopio, Vaasa, and Stockholm were carried out by different people, all of whom, however, had the same written instructions).

Several technical problems also appear if we want to calculate the speech rate by means of some measurable parameters. Should the speech pauses be excluded or should only the total speech time be considered? If pauses are not included, how to define pauses? Is there some time threshold which can be applied when defining a pause? Should syllables or words be counted as the linguistic units? How should they be counted? Most of these problems are discussed here only superficially. Here (see the figures in table 1) the number of syllables in Finnish and Swedish have been counted according to the conventional syllabification, while in the English texts the number of so-called phonetic syllables (of unreduced speech) has been counted. Each free morpheme, including prepositions and articles, has been regarded as a word in the count in the case of English and Swedish, while in Finnish there is no ambiguity in this respect.

Table 1 gives two different figures for the speech rate. One, called the 'total speech rate', is simply the sum of the syllables or words during a posited one-minute-long sequence of speech. The other figure, called the 'articulation rate', is the number of words or syllables per one-minute-long sequence of speech when all pauses longer than 0.2 sec have been excluded. The same data are presented in the form of a graph in figure 1. As can be noted in the following, there is some basis for regarding the speech rate as the amount of both syllables and words per time unit. The results are given numerically in table 1 and

graphically in figure 1. If syllables are counted, it seems, in fact, that Finnish is spoken faster than English, and Swedish a little faster than English but more slowly than Finnish (the rate of speech in the mother tongue was here analysed with the group of Swedish-speaking Finns only). The position is, however, reversed, if words are used as counting units. This comparison does not actually prove that any of the languages is spoken faster than the others. But it clearly shows that it is difficult to compare the speech rate of English to that of Finnish since the phonological and functional structure of words is quite different in the two languages. The syllable rate is faster in Finnish because of the phonological simplicity of Finnish syllables. The reversed position in the word rate is a consequence of the different role of the word as a grammatical concept in Finnish and English: many of the grammatical elements which are free morphemes in English are glued as suffixes onto the word stem in Finnish (see Karlsson, 1977, cf. also Lehtonen, Sajavaara & May, 1977:38f.). In our English standard text, the 'Rainbow Passage', the average word length is 1.4 syllables, while in a typical Finnish literary text it is more than 3 syllables per word. This difference is also shown by the average word length of the spontaneously delivered texts: 2.2 syllables per word in Finnish, 1.3 - 1.4 syllables per word in English.

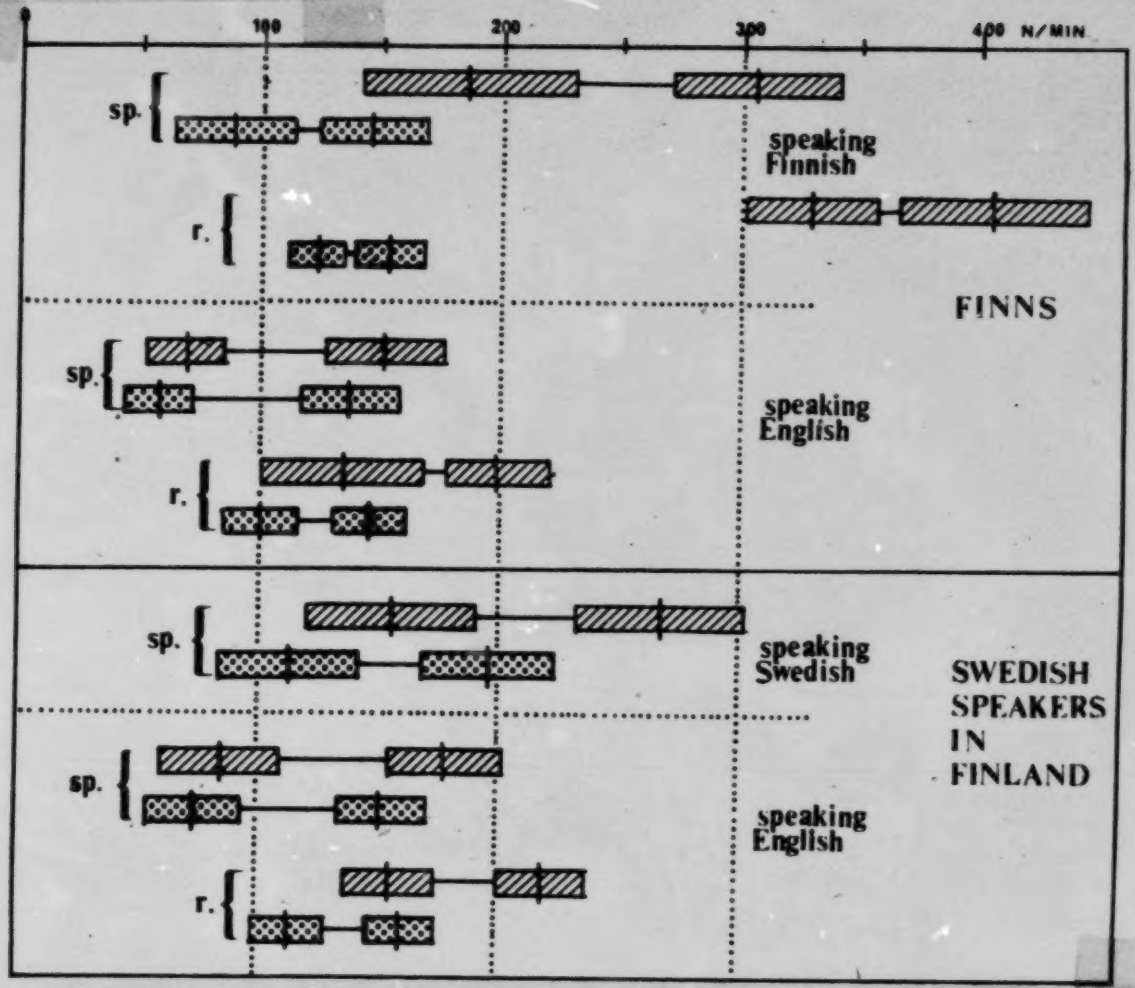
In the present experiment the average word lengths of the non-native informants' spontaneous English were 1.19 syllables per word by the Finns, 1.17 syllables per word by the Swedish-speaking Finns, and 1.24 syllables per word by the Swedes. In an earlier experiment (Lehtonen, 1978) it was found that, among other things, the syllables per word ratio also acts as a kind of indicator of foreign language skill. Students with a lower mastery of English seem to have favoured the more simple one-syllable words rather than longer content words. Compared with the results of the earlier experiment, the average ratio of the Swedes in the present experiment corresponds to the ratio of the

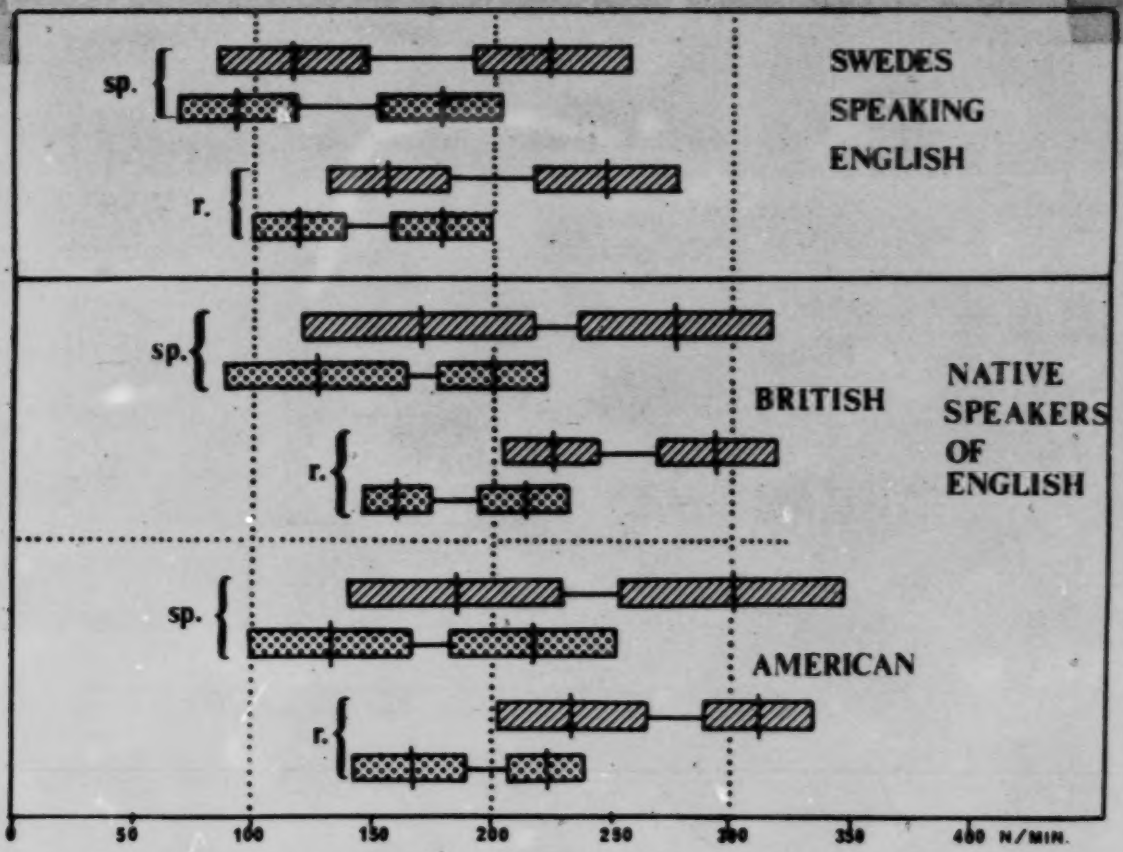
Table 1. Speech rate and pauses in different groups of speakers

group of speakers		syllables/min				words/min								pauses %		number of p/min		total time	
		total rate of speech		articul-ation rate		total rate of speech		articul-ation rate											
		X	s	X	s	X	s	X	s					X	s	X	s	X	s
FINNS N= 24	speaking Finnish	186	45	305	35	89	25	146	24					39	11	28	5	62	25
	speaking English	70	17	161	24	59	14	137	22					56	10	33	6	104	72
	reading English	134	34	199	22	101	17	145	16					31	5	35	6	201	29
SWEDISH SPEAKING FINNS N= 20	speaking Swedish	157	36	269	32	114	28	195	27					41	10	36	7	35	13
	speaking English	80	25	177	23	72	21	151	18					50	14	34	6	58	19
	reading English	155	20	219	18	114	14	160	13					29	6	43	6	178	22

S W E D E S N= 37	speaking Swedish	+	+	+	+	+	+	+	+	34	10	40	+	42	13
	speaking English	115	33	222	33	92	25	178	25	48	11	43	+	69	18
	reading English	165	26	248	29	118	18	178	21	34	7	45	+	172	28
NATIVE SPEAKERS OF BRITISH ENGLISH N=6	speaking English 1)	170	49	278	39	122	39	198	22	39	16	30	6	35	+
	reading English	221	20	293	25	158	14	210	17	25	6	23	3	129	14
NATIVE SPEAKERS OF AMERICAN ENGLISH N= 14	speaking English	184	44	303	47	132	34	216	34	40	11	42	+	32	
	reading English	232	32	310	22	166	23	222	16	25	7	43	+	122	18

Figure 1.


100
200
300
400 N/MIN
sp.
r.
speaking Finnish
FINNS
sp.
r.
speaking English
sp.
speaking Swedish
SWEDISH SPEAKERS IN FINLAND
sp.
r.
speaking English


SWEDES
SPEAKING
ENGLISH
sp.
r.
BRITISH
NATIVE
SPEAKERS
OF
ENGLISH
AMERICAN
50
100
150
200
250
300
350
400 N/MIN.

Finnish university students majoring in English (1.26 syllables per word).

The data presented in table 1 and figure 1 can be summarized as follows: in all groups, the rate of reading was clearly higher than the rate of speaking, both in the production of the informants' mother tongue and in English. This was true both as regards the total rate, where the difference - due to longer and more frequent pauses in free speech - was dramatic, and as regards the articulation rate. However, when the Finns, the Swedish-speaking Finns, and the Swedes spoke English, the difference in the articulation rate between free delivery and reading was greater

---

FIGURE 1. Means and distributions of speech rate for groups of speakers of different languages. In each square, the mean of the rates of individual speakers with a distribution of two SD (standard deviation) is shown by means of a vertical bar. In each line there is a pair of such bars combined with a line. The one on the left stands for the total rate of speech and the one on the right for the so-called articulation rate, i.e. the number of linguistic units (words or syllables) per minute after subtracting the sum total of the duration of pauses in the total time. In each pair of bars or columns the upper one gives the total rate and the articulation rate calculated in syllables (stripped bars) and the lower one in words (dotted bars). The groups from the top of the figure are as follows: (1) Finns (Finnish as mother tongue) speaking Finnish spontaneously (abbreviation sp. in the figure) and reading a Finnish standard text (abbr. r); (2) Finns speaking English spontaneously and reading an English standard text. The text used in each group of this test is the 'Rainbow Passage' of Fairbanks; (3) Swedish-speaking Finns (having Swedish as their mother tongue) speaking (but not reading) Swedish; (4) Swedish-speaking Finns speaking English spontaneously and reading English; (5) Swedes from Stockholm, Sweden, speaking English spontaneously and reading the English standard text; (6) six British university teachers of English working in Finnish universities speaking English spontaneously and reading the English standard text; (7) 14 native speakers of American English speaking English spontaneously and reading the English standard text. The results concerning American English and the Finns' reading in their mother tongue are taken from a paper by Lehtonen & Sajavaara (forthcoming); the tests with American informants were carried out by K. Sajavaara using methods similar to those followed in this study.

than that of the British and Americans (the ratio of Finns 1:1.24, Swedish-speaking Finns 1:1.24, Swedes 1:1.12, but Britons 1:1.05, and Americans 1:1.02). Since the distribution in the articulation rate of free delivery in particular was great among the native speakers, some of them actually produced speech faster when speaking spontaneously than when reading. The rate of articulation, i.e. the number of syllables or words produced per minute, was clearly slower in the English of all the student groups than in the native speakers' English. As compared with the rate of articulation means of the native speakers (reading 302 w/min, free speech 291 w/min), the rate of the Finns was only 66% (reading) and 55% (free speech), the Swedish-speaking Finns 73% (reading) and 61% (free speech), and the Swedes 82% (reading) and 76% (free speech) of the articulation rate of the native speakers. The articulation rate of the Finns was clearly the slowest of all, that of the Swedes the fastest, while the Swedish-speaking Finns were somewhere in between. Since we are dealing with the question of articulation rate, the differences are not caused by different number of pauses.

The syllable rate of the Finns in their mother tongue was altogether a third (!) higher than that of English. The speech rate of the Finns speaking English was, however, considerably lower than that of the Swedish-speaking Finns and the Swedes, when both groups spoke English. The failure of the Finns was most probably a transfer phenomenon from the phonetical characteristics of the Finnish language: if compared to Swedish and English, Finnish is a syllable-timed type of language in which phonetic reduction in unstressed syllables is minimal. When the Finn transfers the habit of pronouncing all of the syllables of each word unreduced and manifesting word boundaries with phonetical juncture segments (instead of linking) the rate of his speech is inevitably slower.

Some studies implicitly equate fluency and carefully monitored speech in which the subject's attention is drawn to his speech performance (cf. Broen & Siegel, 1972). In

foreign language speech the relationship between fluency and monitoring is, however, often the opposite: the speech of the student is too conscious, too careful and therefore not fluent. In the case of Finnish students this problem is reinforced by native language transfer which results in an analytic articulation, absence of reduction in unstressed syllables, and failure in rhythm. The prolonged articulation rate of the Finns in this test is a reflection of this fact.

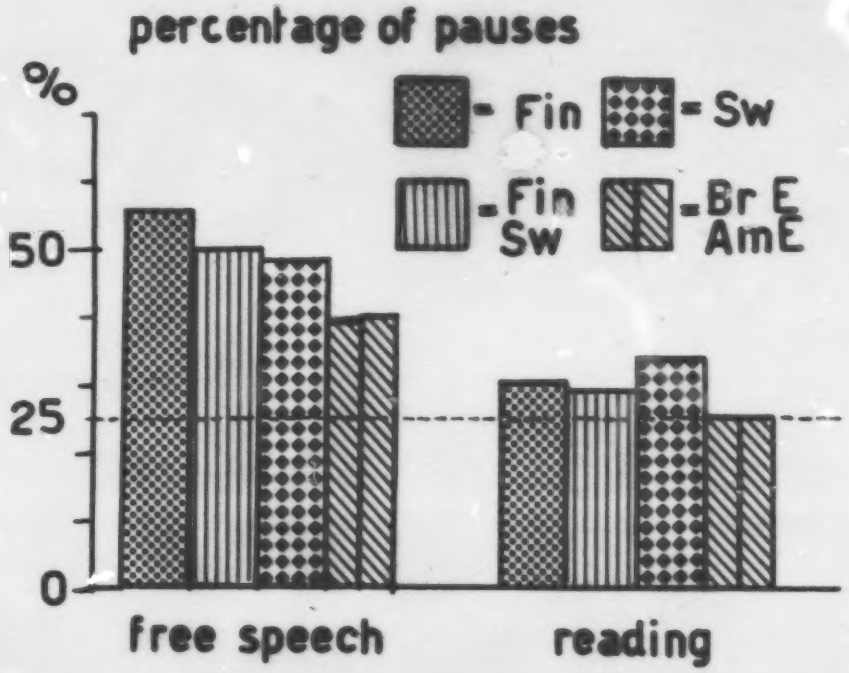
Pausing. The measurement of pauses was carried out by means of an automatic pause counter (for a detailed description of the device and its functional principles see Lehtonen (ed.), 1978). The pause counter does not distinguish between juncture pauses and hesitation pauses. Every voiceless sequence of speech which is longer than a given threshold value is counted as a pause. In the measurements of speech rate, the 'sonority' of speech and the percentage of pauses in speech, the threshold value was set at 0.2 sec: each voiceless sequence longer than 0.2 sec was then counted as a pause by the device. Because most consonants in actual speech have a duration shorter than 0.2 sec, the 'technical' pause time thus gained corresponds fairly well to the real sum duration of speech pauses gained through an accurate phonetic curve analysis. It is possible that, from the point of view of this paper, interesting results could also have been obtained by using a longer trhreshold value, but the passages of free delivery in particular were so short in overall length, that differences between the frequencies of pauses longer than 0.5 sec and 1.0 sec were random.

The distributions of pauses of different lengths were also observed while the measurements were made. Two groups to be observed were randomly chosen: pauses in the flow of speech that were longer than 0.2 sec and pauses whose length was 0.5 sec. No consistent differences between different groups of informants were found in the relation of

shorter and longer pauses. Neither the absolute number of pauses in the reading task nor the relative number of pauses per time unit or per the number of words served as factors separating the groups of informants from each other. Instead, the percentage of the sum duration of pauses out of the total speech time was clearly different with each group (see figure 2), but only in the free delivery of speech.

The percentage of pauses. Figure 2 gives the distribution of speech and pauses as a percentage of pauses out of the total speech time. The results of reading and free delivery of speech for the Finnish group and the two groups of Swedish speakers of English are compared with the corresponding values of native speakers of English. Both in the speech of the Finnish students and in the speech of the native speakers, the percentage of pauses is much higher

Figure 2. Percentage of pauses in different groups of speakers.



out of the total duration of spontaneous speech than that of reading. As a matter of fact, the three test groups cannot be separated from each other in the percentage of pauses as far as reading is concerned. The amount of pause time differs markedly in the free speech of the three groups of speakers: the Kuopio business college students have 56%, the Vaasa students 50% pauses out of the total time, which is almost exactly the same percentage as in the spontaneous English of the Finnish-speaking university students of English in the earlier study (Lehtonen, 1978). The percentage of pauses is practically the same, c. 40%, in the free delivery of speech in both native groups of English. The high amount of pause time for the students cannot be transferred from the mother tongue, for the percentages in free speech in their native language are close to those of the British speakers: 39% for the Finnish, and 41% for the Swedish-speaking business college students. Individual variation in acceptable pausing is, however, high in free speech, and the instrumental methods applied here cannot classify the pauses into hesitation and acceptable grammatical, juncture, or rhythmic pauses. Although the material has not yet been analysed as regards the placing of pauses, preliminary findings seem to indicate that the Finnish-speaking Finns will distinctly differ from the other groups in this respect. In the English spoken by Finns the placement of pauses is more or less sporadic as regards the syntactic structure of the English sentences. The Finnish informants very often place the pauses in a way which breaks the normal constituent structure of the sentence. This kind of occurrence is not found in the English of the Swedish-speaking informants. As stated in an earlier paper dealing with the signalling of word boundaries (Lehtonen & Koponen, 1977), inconsistency in the English of Finns in the placement of pauses and in the signalling of word boundaries instead of linking, may indirectly reflect the way in which a Finn processes the phonetic flow of speech into semantic units in perception. The 'errors' made

in pausing and the phonetic grouping of the message in production may correspond to a confusion in perceptual processes when listening to spoken English. A more detailed analysis of the material will certainly also give further information in this respect.

Pausing is one of the problems of a Finnish speaker of English. The total rate of speech of Finnish-speaking Finns is dramatically lower and the percentage of pauses higher than those of Swedish-speaking Finns and Swedes (the pausing percentages for these groups are 56%, 50%, and 48%). Even the advanced Finnish students of English (51%) trail behind the Swedish group with less training in English. In addition to the pause time and the total rate of speech, the articulation rate of the Finns' English is also lower than that of the speakers in the other groups (see figure 2). A possible explanation for the pause time of the Finns may be a false strategy in processing sequences of hesitation in speech: the Finn keeps quiet while the others use 'pause fillers' like vocalizations ~~ööö~~, well, now, anyway, and so on. This could also be a consequence of the alleged fact that longer pauses are acceptable in Finnish discourse than in many other languages in Europe.

WORKS CONSULTED

Broen, P. & G. M. Siegel (1972). "Variation in normal speech disfluencies". Language and Speech 15:3, 219-231.

Eggermont, J. P. M. (1974). "Speech tempo and foreign language recognition". IPO Annual Progress Report 9, 70-76. Eindhoven.

Fairbanks, G. (1960). Voice and Articulation Drillbook, 2nd ed.. New York, Evanston, and London: Harper & Row.

Johnson, R. & H. L. Friedman (1971). "Some temporal factors in the listening behavior of second language students". In The Psychology of Second Language Learning (eds. P. Pimsleur & T. Quinn), 165-169. Cambridge: The University Press.

Karlsson, F. (1977). "Morphotactic structure and word cohesion in Finnish". In Contrastive Papers (eds. K. Sajavaara & J. Lehtonen), Reports from the Department of English, N:o 4. University of Jyväskylä: 59-74.

Lehtonen, J. (1978). "Problems of measuring fluency and normal rate of speech". Paper read at the 5th International Congress of Applied Linguistics, Montreal 1978.

Lehtonen, J. (ed) (1978). Puheentutkimuksen menetelmät. Jyväskylän yliopiston suomen kielen ja viestinnän laitoksen julkaisuja 17. University of Jyväskylä.

Lehtonen, J. & M. Koponen (1977). "Signalling of morphophonological boundaries by Finnish speakers of English: Preliminary findings". In Contrastive Papers (eds. K. Sajavaara & J. Lehtonen), Reports from the Department of English, N:o 4. University of Jyväskylä: 75-88.

Lehtonen, J., K. Sajavaara, & A. May (1977). Spoken English. The Perception and Production of English on a Finnish-English Contrastive Basis. Jyväskylä: Gummerus.

Mahl, G. F. & G. Schulze (1972). "Psychological research in the extralinguistic area". In Approaches to Semiotics (eds. Sebeok et al.). The Hague-Paris: Moulton: 51-124.

Papers in Contrastive Phonetics. (1979). Eds. J. Lehtonen & K. Sajavaara. Jyväskylä Contrastive Studies, N:o 7. University of Jyväskylä, Department of English. Forthcoming.

Pausological Implications of Speech Production. An Interdisciplinary Workshop, Kassel 1978. Bibliography, compiled by G. Appel, I. Bauer, H. Dechert, & M. Raupach. Gesamthochschule Kassel.

Raupach, M. (1978). "Pause distribution in first and second language speech production", Paper read at the Interdisciplinary Workshop on Pausological Implications of Speech Production, Kassel,June 13-17, 1978. University of Kassel.

Rochester, R. S. (1973). "The significance of pauses in spontaneous speech". Journal of Psycholinguistic Research 2:1, 51-81.

Sajavaara, K. & J. Lehtonen (1978). "Spoken language and the concept of fluency". In Focus on Spoken Language (eds. L. Lautamatti & P. Lindqvist). Language Center News, Special Issue 2. University of Jyväskylä: 23-57.

Suomi, K. (1976). English Voiceless and Voiced Stops as Produced by Native and Finnish Speakers. Jyväskylä Contrastive Studies, N:o 2. University of Jyväskylä, Department of English.

Rolf Palmberg

INVESTIGATING COMMUNICATION STRATEGIES

Introduction and aim

A relatively new area of interest in interlanguage research is that of communication strategies. As is well known, a learner's knowledge of a particular target language (L2) is not always good enough to enable him to communicate the same information content in the L2 that is possible for him in his native language (L1). The study of communication strategies is the study of learners' systematic attempts to express meaning "when faced with the need to communicate with a less than adequate interlanguage system" (Corder, 1975:209).

The first person who explicitly studied communication strategies in this sense was Tamás Váradi. Originally a worker on error analysis, Váradi was interested in how close L2 learners came to communicating what they wanted to communicate. He asked Hungarian learners of English to describe in writing a series of pictures, first in English, then in Hungarian. The rationale behind this procedure was that the L1 version, written immediately after the English version, would reveal exactly what the learner wanted to produce in English, i.e. his "intended meaning" (Váradi, 1973).

Later investigators of communication strategies, notably Tarone, Frauenfelder & Selinker (TF&S, 1976), Tarone, Cohen & Dumas (TC&D, 1976), and Tarone (1977), have often concentrated their analyses on tape recordings of spoken descriptions rather than on written material. The reasons for this are: speech is more like "real communication"; it is more spontaneous than writing; and spoken descriptions reveal the pauses, hesitations and corrections that learners make while struggling with their narratives.

The present paper reports on an experiment designed to reveal the problems involved in the study of communication strategies. An attempt to identify and contrast the strategies used by Finns, Swedish-speaking Finns (hereafter referred to as Finland-Swedes), and Swedes when communicating in English is also made.

Material and methods

The subjects in the present study were first 24 Finns and 19 Finland-Swedes, all first-year commercial-college students from Kuopio and Vaasa, and secondly 36 Swedish, first-year students from the Military Academy in Stockholm.[1] The students were given a series of pictures comprising a story, and a text in their L1 which briefly summarized the content of that series of pictures. When the students had read through the L1 text, it was put aside. They were then asked to tell the story, with all the means at their disposal, in English (they were not, however, allowed to ask the experimentor for help), and it was pointed out that their main concern was successful communication (i.e. the successful passing on of precise information), not the production of grammatically correct language. Having finished their L2 description, they were asked to retell the story in their L1.[2]

The descriptions were recorded on tape, and transcripts were made of the tape-recordings. In this paper all extracts from the texts are registered in conventional orthography, with the occasional mispronounced or invented word given in a broad-phonetic transcription. In the transcripts features of hesitation or pause (symbolized

---

1 The Finland-Swedes were originally 37 in number. However, due to a technical hitch only 19 productions could be analysed in this subtest. The Swedes also were originally 37 in number. One of them, however, produced no story-telling at all.

2 For a detailed account of the test population and test procedures, see pp. 11-13 in this volume.

by dots) have been preserved.

As in error analysis, it is not always possible to differentiate a correct L2 utterance resulting from learner knowledge from one which is produced by chance. For the sake of simplicity in analysis, therefore, it is assumed that all correct target expressions (that is, when compared to the L1 description) result from knowledge only. An L2 expression which differed from the L1 version is presumed to arise from the employment of a communication strategy.

Different strategies may, however, be at work simultaneously in the same utterance for a particular target concept. They may also be used interchangeably to communicate that concept. In order to make provision for these two possibilities, the symbols "+" and "/" are used.

A typology of communication strategies

Since the presentation of Váradi's influential paper there have been several attempts to establish a typology of communication strategies which are fairly easily recognizable, and, as far as possible, mutually exclusive (TC&D, 1976, TF&S, 1976, Tarone, 1977, Blum & Levenston, 1977). With a few modifications the typology suggested by Tarone was found the most suitable for the present purposes. The present analysis will, therefore, concentrate on three basic strategies of communication, namely <u>avoidance</u>, <u>paraphrase</u>, and <u>transfer</u>.[3] The strategies are exemplified below with data from the present study.

---

3 Tarone's typology, in fact, includes five basic strategies of communication. Deleted from the present typology are <u>appeal for assistance</u> (the instructions given to the learners in the present test prevented any occurrence of this strategy) and <u>mime</u>.(Mime in Tarone's sense refers to the use of non-verbal actions performed by the learner in order to communicate. Tarone gives the example: " ... and everybody say (the learner claps his hands)"; target: "applauds".)

1. Avoidance

As the term implies, avoidance refers to various types of "escape routes" (Ickenroth, 1975:10) which learners resort to when confronted with concepts for which they lack the appropriate vocabulary. The notion of avoidance has been reported on recently by, e.g., Schachter (1974), Kleinmann (1977), and Blum and Levenston (1977). In the present typology three different avoidance strategies are distinguished.

1a. Topic avoidance occurs "when the learner simply does not talk about concepts for which the vocabulary is not known" (Tarone, 1977:5). For example, one learner who did not know the word "gangway" directed his conversation away from that topic: "Adam must stand ... because there's no place to him".

1b. Message abandonment (Váradi's term) occurs when the learner starts expressing a target concept but does not know how to go on. He then continues his narrative leaving the utterance unfinished. One learner, for example, not knowing how to express "seat" in English, produced the following: "He doesn't get a ... er ... er ... (new utterance)".

1c. Message reduction (dealt with by Váradi but not included in the Tarone typology) occurs when the learner deliberately chooses to be less specific than he originally intended to be. The words used in message reduction are characteristically familiar, frequent words, a fact which confirms that the reduction in meaning is deliberate. An example is "in the bus" for "in the gangway".

2. Paraphrase

The paraphrase strategy (with subcategories) has caused some terminological disagreement among those studying communication strategies. Tarone distinguishes three paraphrase subcategories, two of which Váradi describes as

strategies of avoidance. Tarone, quite correctly, does not see paraphrase as an indication of avoidance. The reason why paraphrase should not be classified as avoidance behaviour lies in the positive attitude of the learner towards his communicative task. When faced with difficulty, the learner can choose either of two principal strategies (Corder, 1978). He may adjust his message, by avoiding difficult concepts or by being less specific than he wished to be. Or, he may try to get his intended meaning across by expanding his available resources (which include guessing, circumlocution, word coinage, borrowing from other languages, etc.), often at the risk of failing to achieve his communicative end. The crucial difference between avoidance and paraphrase, therefore, is that avoidance strategies are "risk-avoiding" strategies, whereas the paraphrase (and, of course, transfer) strategies are "risk-taking" or "resource-expansion" strategies (Corder's terminology).

In the Tarone paper the three paraphrase subcategories which are delineated are, approximation, word coinage, and circumlocution. In the present analysis a fourth has been distinguished, that of lexical substitution.

2a. By approximation is here understood various sorts of intralingual confusions between L2 words and expressions possessing grammatical and/or phonetic similarities, as well as generalizations of existing L2 patterns. Examples are "/kru:liŋ/" for "quarrelling" and "besides" for "beside".

2b. Word coinage (Váradi's term) occurs when the learner invents a new word or expression in order to report something for which he lacks the appropriate word. One learner, for example, used the expression "to /krais/" for "to quarrel".

2c. Circumlocution (TC&D, Tarone) is an elaborate way of describing or defining a target concept. The basic difference between circumlocution and message reduction is that

the latter results in considerable (deliberate) loss of detail from a semantic point of view. Examples of circumlocution are "a place where the bus is due to stop" for "bus stop" and "a man and a woman ... who is married to each other" for "a married couple".

2d. In the case of lexical substitution (adapted from TF&S, 1976:127) the learner chooses an existing L2 word (or an approximation thereof) to convey his intended meaning. Although expressions of this type characteristically (but not necessarily) share some semantic elements in common with the target concept that the learner is trying to communicate, they are often only guesses of the "hit or miss" type described in Jain (1974:205). Examples are "corridor" and "balcon" for "gangway"; "bus market" for "bus stop".

3. Transfer

The third class of strategies considered is that of transfer. At the theoretical level, transfer differs from paraphrase in that in transfer the learner's L1 (or an L3) has been the direct cause of the resulting expression. In paraphrase, on the other hand, the responsibility falls upon the L2. It may not always be easy to draw clear-cut borderlines between the two, since combinations are also possible in practice.

Whereas Tarone speaks of this strategy in terms of "conscious transfer" (1977:4), TF&S define transfer as "an unconscious use of native language lexical forms" (1976: 128). Kellerman, on the other hand, suggests that transfer as a strategy should be thought of as a gradient, at the one end of which transfer may have become an automatic process (cf. Blum & Levenston, 1977:6). The learner in this case believes that what he is producing really is L2 language. At the other end of the gradient the learner relies on his L1 in order to ensure communication, sometimes even against his better judgement (Kellerman, 1978:

90). For transfer in this latter sense the term "borrowing" suggested by Corder (1978) would be more accurate.

In addition to Tarone's two transfer subcategories, language switch and literal translation, a third one, anglification, can be distinguished.

3a. Language switch is defined as the transportation of "a native word or expression /or morpheme; R.P./, untranslated, into the interlanguage utterance" (TC&D, 1976: 84). "in the /mitten/ of the bus", for example, was produced by a Swedish learner ("mitten" is the Swedish word for "middle"). This category also includes the use of words and expressions from languages other than the L1, which may be used in the belief that they are, in fact, L2 words. An example: a Finnish learner spoke of a seat as being "/tu:m/", apparently having in mind the Swedish word for empty or vacant, "tom".

3b. By anglification (discussed in Ringbom, 1978) is here meant the giving of an English pronunciation or ending to a non-English word. Examples are "/ʃ ilt/" for "sign" (cf. the Swedish "skylt") and "to /gri:l/" for "to quarrel" (Swedish "gräla"). The deception of the learner into using such anglified words is further promoted by the occasional existence of identically pronounced, but semantically different, English words (which probably are, at least subconsciouly, in the learner's mind at the time of production). An example of the latter is "/bæŋk/" for "seat" (Swedish "bänk", Finnish "penkki").

3c. Literal translation occurs when the learner uses word-for-word (or morpheme-for-morpheme) translations from a language other than the L2 when communicating in the latter. An example of this is "bus stop place", produced by a Finland-Swede (cf. the Swedish "busshållplats"). This category also includes those expressions where the semantic range of an L1 (or L3) word has been extended in order to communicate an L2 concept. For example, "place" was produced by several learners for "seat", since in Swedish

"plats" is the equivalent of both "place" and "seat". (For more examples of this type, see Ringbom, 1978).

TABLE 1. Communication strategies: a summary

STRATEGY subcategory	description of strategy	EXAMPLES interlanguage utterance (target)
AVOIDANCE	1	
topic avoidance	1a	ø ("gangway")
message abandonment	1b	"he doesn't get a ... er ... er ... (new utterance)" ("seat")
message reduction	1c	"in the bus" ("in the gangway")
PARAPHRASE	2	
approximation	2a	"besides" ("beside")
word coinage	2b	"they /krais/" ("quarrel")
circumlocution	2c	"a place where the bus is due to stop" ("bus stop")
lexical substitution	2d	"balcon" ("gangway")
TRANSFER	3	
language switch	3a	"in the /mitten/ of the bus" ("middle")
anglification	3b	"/ʃilt/" ("sign")
literal translation	3c	"bus stop place" ("bus stop")

On the reliability of the intended-meaning hypothesis

In the identification of communication strategies used by a learner telling a story in an L2, great importance is attached to the corresponding L1 version of that story. As illustrated in table 2, there are four possible combinations as regards the presence or not of a particular target concept in these two versions.

If a particular target concept is present in the L1 version, and present or attempted in the L2 version, it is, by comparison, possible to state whether the learner has used his knowledge or a communication strategy. If, on the other hand, the concept is present only in the L1 version,

TABLE 2. Presence of target concepts in L1 and L2 versions

	Concept present in L1 version?	Concept present (or attempted) in L2 version?
Possibility 1	Yes	Yes
Possibility 2	Yes	No
Possibility 3	No	Yes
Possibility 4	No	No

and has not been attempted in the L2 version, this is, by definition, an instance of topic avoidance. The concept may, however, be present in neither version. In such cases it cannot be unambiguously decided whether the concept has been avoided by the learner in the L2 version, or (and this is what the intended-meaning hypothesis suggests), whether the learner just found the concept not worth inclusion in his story from an information-content point of view. Possibilities 1, 2, and 4, therefore, do not necessarily contradict the hypothesis.

Possibility 3, unfortunately, does. It may be assumed that the learner, being a native speaker, need not normally avoid any concept in his L1. In spite of this, examples of concepts present or attempted in the L2 versions, but not included in the L1 versions, can be found in the present data. Since, however, they are very few, the classification of strategies has, as far as these instances are concerned, been made as if the concepts were, in fact, present in the L1 versions.

Data analysis[4] and discussion

The results presented here are restricted to the six most frequently occurring target items in the story, i.e. "a

4 This paper deals only with the ways learners pass on cognitive, factual information. For factors such as speech rate and pausing in the descriptions, see Lehtonen's paper in this volume.

married couple", "to quarrel", "bus stop", "seat", "gangway", and "beside". For example, in the description of the series of pictures given by Finland-Swedish learner no. 18, the following communication strategies were identified:

"Adam and Eva ... are married ... er ... and
(circumlocution)
then they've come to ... a ... bus ... stop
(literal
place ... er ... but they are ... quarrelling
translation)
... then the bus comes and ... they ... step
into the bus ... and they are still quarrelling
... when they go ... into the bus ... er ...
in the bus ... er ... in the bus the woman ...
get a place ... near the window ... er ... but
(literal translation)
the man ... have to stand ... after while ...
(topic avoidance)
the man who ... sits behind the woman rose and
(lexical substitution)
go away ... er ... and then woman's /hæs/ ...
husband ... sits down b...besides his wife ...
(approximation)
and then they start to quarrel again".

Similarly, the following strategies were identified for the six target concepts for the Finns (table 3), Finland-Swedes (table 4), and Swedes (table 5):

TABLE 3. Strategies used by the Finns

Learner	Target					
	married couple	quarrel	bus stop	seat	gangway	beside
1		2b/OK		3c		2c/2a
2		2b			2d	1c
3	1c			3c	1a	
4				3c	2d	
5					1a	
6				3b/3c		2c/1c
7			2d	3c	1a	1c/OK
8				3c	1a	1c
9				3c		
10				3c	2d	2c
11	2c				2d	1c
12	1c					1c/2d
13				3c		2a
14	2c				1a	
15	2a+2c			1b		1c/OK
16		2c	1a	2a/3c	1a	
17	2c	2c				1c
18				3c	1a	
19			1a	3c		2d/OK
20						
21	2c		2c	3c	1c	2d
22	2c		1a			1c
23				3c		1a
24						1c/OK

TAbLE 4. Strategies used by the Finland-Swedes

Learner	Target					
	married couple	quarrel	bus stop	seat	gangway	beside
1	1b+1c		1a	3c/OK		
2	2c			3c		2a/OK
3	2c			3c/OK	1c	
4	2c			3c	2c	
5						
6				3c		1a
7		2a	1c			1c
8	3c					1a
9	3c		1a	3c/OK	1a	
10			2d			2a
11	2a+3c		1a			1c
12	2c	2c	3a+3c	3c	1a	2c
13	3c			3c		2a
14					2c	2d
15			1a			
16						
17	1c		1a			2c
18	2c		3c	3c	1a	2d/2a
19		2c				

TABLE 5. Strategies used by the Swedes

Learner	Target					
	married couple	quarrel	bus stop	seat	gangway	beside
1	3c			3c	1a	
2				2a/3c/2d	2c	2a
3						
4	2c	2a		3c		3a
5	3c					
6	2c				3c+2d	1c/2c
7				3c	3a+2c	
8				3c/OK	2c	2a/OK
9	2c			3c		
10		2a		3c		
11		1c			1a	
12					2c	2c
13		2c		3c/OK	2c	2a
14			1a	1a	1c	2d
15		3b/2b		3c/OK	2c	2d
16	2c	2c/1c		3c/2a		1c
17		2c		3c		2c
18				3c/OK		1c
19	2c					
20				3c		1c/2c
21	2c			3c/OK	1c	2a/1c
22					2c	2a
23					2c	1a
24				3c		2d
25	2c				1a	2c+3a
26				3c		
27		2a		3c		
28	2c	1c		1a	1a	2d
29				3c	2c	2a
30	2c				1a	
31					2c	2c

TABLE 5. Strategies used by the Swedes (cont.)

Learner	Target					
	married couple	quarrel	bus stop	seat	gangway	beside
32		3b/2b		2a/OK		2d
33				3c		
34		2b		3c/OK		
35	2a			3c/OK	2c	1a
36			2d	3c/OK		

(a) "a married couple"

As tables 3-5 show, circumlocution, a subcategory of paraphrase, was the most frequently employed strategy by all groups of learners communicating the target concept "a married couple". Examples are "Adam and Eve ... they are married" and "a husband and a wife". The two Swedish-speaking groups used literal translation as well, producing "pair" for "couple". Also instances of message reduction (e.g. "a man and a woman") were found.

(b) "to quarrel"

Apart from a few instances of message reduction (e.g. "they are ... talking with ... together") and anglification (e.g. "/grouliŋ /"; "/gri:l/") by the Swedes, the majority of strategies used were paraphrase strategies. Examples of approximation are "/kru:liŋ /" and "/skworəl/"; of word coinage "/krais/" and "they have a /grætl/ with them"; and of circumlocution "they don't like each other at the time ... they are ... not fighting but they they are talking in a loud voice with each other".

(c) "bus stop"

Many learners knew the expression "bus stop", but more than half of those who did not decided to adopt the strategy of

topic avoidance. The remaining ones used message reduction (e.g. "they come to ... a bus"), circumlocution (e.g. "a place where the bus is due to stop"), literal translation (e.g. "bus ... stop place), or, finally, lexical substitution (e.g. "bus market").

(d) "seat"

This concept was a very tricky one. To express it, more than half of the learners (including the Finns) used the word "place", which shares both formal and semantic similarities with the corresponding Swedish word, "plats", meaning both "seat" and "place". All of the expressions used by the Finland-Swedes for this concept were instances of literal translation. The Finns and the Swedes, in addition to this strategy, used message abandonment (e.g. "he doesn't get a ... er ... er (new utterance)", anglification (e.g. "/bæŋk /"), and approximation (e.g. "/sit/"; "/sait/") as well.

(e) "gangway"

Topic avoidance and circumlocution proved to be the two most popular strategies employed to express the concept of "gangway". Examples of circumlocution are "in the middle of the bus" and "between the two rows of benches". Also, instances of message reduction (e.g. "in the bus") and lexical substitution (e.g. "corner"; "balcon") were found.

(f) "beside"

The last of the six target concepts, "beside", was expressed principally by means of paraphrase strategies. "besides" is a typical approximation. "behind", "between", and "beneath" are examples of lexical substitution; "at the seat ... to the left of her" and "next to Eva" of circumlocution. "near" and "with" were regarded as instances of message reduction.

Taking the three groups of learners as wholes, is it possible to trace any difference in strategy preferences for the six target concepts analysed? A simple way of comparison would be to count the strategies used, counting "mixed" strategies (e.g. "1c/2a) as two (tables 6,7, and 8).

TABLE 6. Strategy preferences for the Finns

subcategories	instances	instances of basic strategies[5]
topic avoidance	11	
message abandonment	1	AVOIDANCE 25
message reduction	13	
approximation	4	
word coinage	2	PARAPHRASE 24
circumlocution	12	
lexical substitution	8	
language switch	-	
anglification	1	TRANSFER 14
literal translation	14	

5 In this table as well as in tables 7 and 8 the sum of subcategory instances does not necessarily equal the sum of instances of basic strategies, since, for example, the expression described as "2a+2b" is the result of two subcategories of only one basic strategy.

TABLE 7. Strategy preferences for the Finland-Swedes

subcategories	instances	instances of basic strategies
topic avoidance	10	
message abandonment	1	AVOIDANCE 16
message reduction	6	
approximation	6	
word coinage	-	PARAPHRASE 19
circumlocution	11	
lexical substitution	3	
language switch	1	
anglification	-	TRANSFER 15
literal translation	15	

TABLE 8. Strategy preferences for the Swedes

subcategories	instances	instances of basic strategies
topic avoidance	10	
message abandonment	-	AVOIDANCE 20
message reduction	10	
approximation	14	
word coinage	3	PARAPHRASE 55
circumlocution	28	
lexical substitution	11	
language switch	3	
anglification	2	TRANSFER 30
literal translation	25	

For these particular target concepts, it seems as if the Finns tend to avoid or paraphrase difficult concepts rather than utilize transfer strategies. No such preference can be found as far as the Finland-Swedes are concerned: the three basic strategies are more or less equally employed, with paraphrase as the first alternative. For

the Swedes also paraphrase is the first alternative, followed by transfer and avoidance. Here, however, the difference between the first and last alternative is much greater than in the case of the Finns.

A conversion of "total number of basic strategies used" into "number of basic strategies used per learner" (table 9) shows that the Finns adopted avoidance strategies slightly more than the Finland-Swedes and much more than the Swedes; paraphrase strategies as much as the Finland-Swedes but much less than the Swedes; and, finally, transfer strategies somewhat less than the two Swedish-speaking groups.

TABLE 9. Number of basic strategies used per learner

	Avoidance	Paraphrase	Transfer
Finns	1.0	1.3	0.6
Finland-Swedes	0.8	1.0	0.8
Swedes	0.6	1.5	0.8

On the individual level, however, greater differences in strategy preference can be found. Tables 3, 4, and 5, read horizontally, show, for example, that some learners, irrespective of their L1, are more liable to avoidance than others (see, e.g., Finnish learner no. 22, Finland-Swedish learner no. 1, and Swedish learner no. 14). Some learners, again, clearly prefer paraphrase strategies (e.g. Finnish learner no. 21, Finland-Swedish learner no. 12, and Swedish learner no. 13), whereas, finally, some seem to take to transfer strategies relatively easily (e.g. Finland-Swedish learner no. 18, and Swedish learner no. 7).

Similar patterns were found by Ickenroth. He reports on experiments indicating a preference for either paraphrases (circumlocution in the present typology) or transfer among less advanced Dutch learners of English. Advanced learners, on the other hand, used few paraphrases

(i.e. circumlocution), but many lexical substitutions (Ickenroth, 1975).

One may speculate as to the relation between the preference for particular communication strategies and level of proficiency. Is there a difference in communication strategies used by beginners for example when compared to more advanced learners? As for learning strategies[6] and language-learning success, this has been successfully studied by Rubin (1975), who, in her review of on-going research, characterizes the "good language learner" (as opposed to the "bad language learner") as a typical "risk-taker" in Corder's (1978) sense, favouring, in communication, particularly guessing and circumlocution. Rubin observes, however, that variation between learners may be expected according to factors such as age, learning stage, and task.

Personality also may be an important factor affecting the choice of communication strategy. It has, in fact, been argued that certain personality factors may be strongly tied to a preference for, say, avoidance strategies; others, on the other hand, for, say, appeal for assistance (Tarone, 1977; Corder, 1978). Such a hypothesis needs, of course, to be tested from many different perspectives.

Furthermore, in addition to being potentially (what may be called) "learner-specific", and (as pointed out by Rubin, 1975) "task- (or test-) specific", communication strategies may also be "item-specific". It must, in other words, be assumed that different types of eliciting techniques may result in the use of different strategies, and that certain target items may tend to bring about

---

6 For the distinction between learning strategies and communication (or production) strategies, see Richards and Sampson (1974:13); TF&S (1976:99-100).

different strategies. This tendency was observed by Ickenroth (1975), and may be studied also with respect to the six target items in the present study (see tables 3, 4, and 5).

Conclusions

One of the prerequisites for further studies in the field of communication strategies will be the finding of a reliable means to establish a learner's intended meaning. It is true that

> a special situation where ... we can reckon with intended meaning is translation, since it is a type of test where we do know what the learner wanted to communicate (Ringbom, 1978:81).

Where, however, spontaneous learner speech constitutes the prime interest of the investigator, translation is not a useful test.

One way of improving the present test arrangements would be to reverse the order of languages in which the learner describes the cartoon. Letting him start by telling the story in his L1, would not only make him feel more comfortable (since there should be no difficulty for him to express himself in his L1), it would also allow him to tell the story exactly as he experiences it (it would still be possible for the experimentor to make sure that all desired target concepts are included in the description, if necessary by direct questions to the learner). Later, the learner having finished his L2 version, the experimentor could ask the learner to comment on some of the utterances made. Such an interview (proposed by, e.g., Jordens, 1977) would verify the instances identified as, say, topic avoidance, or, it could explain the choice of certain expressions used by the learner. This, in turn, would make the classification of strategies more objective.

Summary

The present paper reports on a study of communication strategies used by Finns, Finland-Swedes, and Swedes when communicating the information content of a series of pictures in English. Six target concepts are analysed, and the expressions produced by the learners are classified according to a typology of communication strategies comprising three basic strategies (avoidance, paraphrase, and transfer) with a total of ten subcategories. Difficulties involved in the study of communication strategies are discussed, and although some difference in strategy preference by the three groups of learners as wholes can be found, it is hypothesized that strategy preference is primarily a question of proficiency level and personality, irrespective of learner L1.[7]

7 I wish to thank Anders Nygård, Geoffrey Phillips, Håkan Ringbom, Kay Wikberg, and especially Jan-Ola Östman for valuable comments on an earlier version of this paper.

REFERENCES

Blum, S. & E. Levenston (1977). "Universals of lexical simplification". Ms.

Corder, S. P. (1975). "Error analysis, interlanguage and second language acquisition". Language Teaching & Linguistics: Abstracts 8:4, 201-218.

Corder, S. P. (1978). "Language-learner language". To appear in Understanding Second and Foreign Language Learning: A Survey of Issues and Approaches (ed. J. C. Richards), Rowley, Mass.

Ickenroth, J. (1975). "On the elusiveness of interlanguage". Progress Report, Institute of Applied Linguistics, University of Utrecht.

Jain, M. P. (1974). "Error analysis: source, cause and significance". In Richards (ed), 1974, 189-215.

Jordens, P. (1977). "Rules, grammatical intuitions and strategies in foreign language learning". Interlanguage Studies Bulletin - Utrecht 2:2, 5-76.

Kellerman, E. (1978). "Giving learners a break: native language intuitions as a source of predictions about transferability". Working Papers on Bilingualism 15, 59-92.

Kleinmann, H. (1977). "Avoidance behavior in adult second language acquisition". Language Learning 27:1, 93-107.

Richards, J. C. (ed) (1974) Error Analysis - Perspectives in Second Language Acquisition: Longmans, London.

Richards, J. C. & G. Sampson (1974). "The study of learner English". In Richards (ed.), 1974, 3-18.

Ringbom, H. (1978). "The influence of the mother tongue on the translation of lexical items". Interlanguage Studies Bulletin - Utrecht 3:1, 80-101.

Rubin, J. (1975). "What the "good language learner" can teach us". TESOL Quarterly 9:1, 41-51.

Schachter, J. (1974). "An error in error analysis". Language Learning 24:2, 205-214.

Tarone, E. (1977). "Conscious communication strategies in interlanguage". Paper presented at the 1977 TESOL Convention, Miami Beach.

Tarone, E., A. Cohen, & G. Dumas (1976). "A closer look at some interlanguage terminology: a framework for communication strategies". Working Papers on Bilingualism 9, 76-90.

Tarone, E., U. Frauenfelder, & L. Selinker (1976). "Systematicity/variability and stability/instability in interlanguage systems". In Papers in Second Language Acquisition (ed. D. Brown), Language Learning, Special Issue 4, 93-134.

Váradi, T. (1973). "Strategies of target language learner communication: message adjustment". Paper presented at the Sixth Conference of the Romanian-English Linguistics Project, Timisoara.

Håkan Ringbom

THE ENGLISH OF FINNS, SWEDES AND SWEDISH FINNS: SOME CONCLUDING REMARKS

Although only one of the three tests actually ranked the students, some general differences between the three groups can be discerned. As for the explanation of such differences, variations between the Swedes and the Finns can be ascribed to linguistic or socio-cultural factors, or, more likely, a combination of both, whereas the Swedish Finns differ from the Swedes only culturally and in their pronunciation and intonation of their mother tongue. The differences between the Finns and Swedish Finns are primarily linguistic, the cultural differences being slight. There is, however, at least one socio-cultural difference between Swedish Finns on the one hand and Swedes and Finns on the other, which probably has relevance for the "language shock" experienced by all learners of a foreign language. This is that the great majority of the Finns, living in a monolingual, or almost monolingual, Finnish area, are not used to even hearing another language in their immediate environment, whereas the great majority of Swedish Finns are constantly reminded of a different majority language in their country. Nearly two thirds (62%) of the Swedish Finns thought that their knowledge of Finnish was better than their knowledge of English. The remaining third thought that their English was better. Although a knowledge of Finnish would seem to be of little direct help to a Swedish Finn learning English, his early awareness of the existence of another language, structurally quite different from his own, may in a general way contribute to facilitating his task of learning English, at least in listening comprehension. In this respect, the monolingual situation prevailing in Sweden makes the situation of the Swedes more comparable to that of the Finns than the Swedish Finns. (Although a substantial number of immigrants have settled in Sweden, their native languages have not to any extent threatened

the position of Swedish as the only official language and the prestige language of the country.)

It is, of course, well known that an ability to understand a foreign language well does not necessarily mean that the person can speak it fluently. Still, if we can assume that the groups examined here are commensurable, one might wonder why the Swedish Finns could perceive and understand English better than the Swedes, whereas the results of the present tests point to their skill at speaking English as not being as good as that of the Swedes. At least in part, their greater ability to comprehend spoken English could be due to their being used to hearing another language in their daily environment. Another, probably more important, socio-cultural factor lies in the different educational systems of the two countries and the possibly different priorities assigned to oral and written skills in the schools. To generalize about English language teaching in two countries is, of course, always dangerous, but some explanations along those lines can, I think, be given, for instance, to account for the fact that the Swedes made considerably more spelling errors than the Finns or the Swedish Finns.

The large number of spelling errors made by Swedes in the dictation test seems to indicate that the writing skill is not as much emphasized and practised in Sweden as in Finland. Schools in Sweden probably give a much higher priority than schools in Finland to developing the students' speaking skill, and with such a goal, and in the absence of a national school-leaving examination, which always tends to focus on written skills, it is natural that the pupils, if not the teachers, have felt that English spelling is not all that important.

The general educational situation in Sweden is different from that in Finland in that the National Matriculation Examination was abolished more than a decade ago. There is, obviously, a very strong guiding effect on teaching by the present Matriculation Examination in Finland, which com-

prises a listening comprehension part (multiple choice questions), a reading comprehension part (multiple choice questions), a composition, and a section on grammar, but no oral production. This is, of course, a very important reason why English teaching in Sweden, compared with that in Finland, has placed so strong an emphasis on the speaking skill, whereas in classrooms in Finland the students' ability to speak English is a goal clearly subordinated to their ability to pass a particular type of test. On the other hand, the absence of a national examination easily leads to slackness in the classroom.

This background is undoubtedly relevant to Lehtonen's findings (pp. 35-51) that the articulation rate of the Finns is the slowest of all, that of the Swedes the fastest, whereas the Swedish Finns come somewhere in between. The same order is found for the percentage of pauses, and it might seem tempting to rank the three groups in this order according to their fluency in English. In another paper (Lehtonen, 1978), however, Lehtonen has pointed to the vagueness of the concept "fluency" and the difficulty in linking fluency with some specific, physically measurable phenomena. Yet it seems probable that the order Swedes - Swedish Finns - Finns would, impressionistically speaking, seem the natural one as far as general fluency in English is considered, and the data in Lehtonen's paper in this volume lends some support to such a ranking. More experiments are, however, needed in this area.

Linguistic folklore provides some evidence relevant to the possibly greater fluency of the Swedes over the Swedish Finns, as compared with their lower competence in listening comprehension. In Finland, at any rate, it is often thought that, compared with Swedish Finns, Swedes know how to express themselves fluently, even elegantly in their mother tongue, even though they may have nothing at all to say, and if there is some truth in this, such a greater facility in expression would no doubt also be reflected in the

speaking of a foreign language.[1] One might also invoke Berthold Brecht's dictum that "Finland is a country where people are silent in two languages", as well as other pieces of anecdotal evidence in support of the general impression of "the silent Finns" (among whom Swedish Finns, too, would often be included). And one is reminded of the careful wording in Lehtonen's last sentence, "the alleged fact that longer pauses are acceptable in Finnish discourse than in many other languages in Europe" (p. 49 , this volume).

In this context it is also relevant to note Palmberg's conclusion that almost the only discernible difference between the three groups as far as communication strategies are concerned is that Swedes make more use of paraphrase, a resource-expanding strategy, than either Finns or Swedish Finns (pp. 68 - 70 , this volume). Although the material here is much too small, frequent use of paraphrase might be taken to indicate that the Swedish learners have had more practice at school and otherwise in using English themselves (this is supported by the information on the students' stay in English-speaking countries, see p. 13 in this volume). When communicating in English, the Swedes may well have reached a higher degree of sophistication, in a situation where they are faced with the problem of not knowing the English for a particular word essential to the context. In such a situation they avoid reducing the content of the message, and try to get the message across in comprehensible English, keeping it as close to the intended meaning as possible.

In many respects, the present tests have provided some further evidence for conclusions tentatively reached by previous investigations concerning the differences between Finns and Swedish Finns learning English.[2] The tests used

---

1 For writing, the relative proficiency in Swedish (native language) and English (foreign language) has been dealt with by e.g. Stendahl, 1972, Truus, 1972, and Linnarud, 1977.

here give an exceptionally clear illustration of the disadvantage of a learner having a mother tongue unrelated to the foreign language being learnt. This disadvantage appears much more strongly in the oral skills of speaking and listening than in writing, and the fact that the students here are at a slightly less advanced level than those taking the same type of listening comprehension tests in an entrance examination is also reflected in the proportionally worse results of the Finns.

The process of successful inferencing lies behind the completion of a listening comprehension test, such as partial dictation. Inferencing means roughly "recognizing what is not familiar", and when one learns a foreign language there are three types of cues that can be used for this purpose. These are intralingual cues (those given by the structure of the foreign language, or rather the learner's accumulated knowledge of English, in this case), interlingual cues (those derived from comparison with the mother tongue) and extra-lingual cues (those given by the general context or meaning of the message). It is easy to realize that with one of these types, the interlingual cues, Finns are much less helped than Swedes. The interlingual cues are obviously much more readily available to Swedes than to Finns. Whereas a Finn is often at a complete loss as to the meaning of a particular word, a Swede may much more easily derive some meaning through its similarity with a word in his mother tongue. At the very outset of their studies, Swedes already seem to have some basic intuitive knowledge of English automated, in that much of their mother tongue knowledge is of direct relevance to their English studies. This automated knowledge can easily be extended to an automated knowledge of a related language. The grammatical categories of English are familiar to Swedes and much of its vocabulary at least

---

2 For previous results see Ringbom & Palmberg (eds), 1976, as well as the papers by Palmberg, 1977, and Ringbom, 1977, 1978a, 1978b, and 1978c.

vaguely recognizable. It is relatively easy to match corresponding items, and thus to acquire at least the receptive skills fairly quickly. On the other hand, the linguistic knowledge Finns have automated in their mother tongue is of comparatively little use for learning English. This probably means that Finns reach the stage of automation when learning English later than Swedes. Under the time pressure of a listening or speaking situation this difference becomes particularly conspicuous, since the result of lacking automation is wrong comprehension or very staccato speech with disturbing pauses. In oral skills, it is also probable that a knowledge of other Germanic languages does not help the Finn very much, unless he is almost fully bilingual, i.e., his knowledge of the other language is so good as to have become automated.

A more detailed analysis of the differences in linguistic structure between Finnish and the Germanic languages is also important for the understanding of the difficulty in English listening comprehension for Finns. One important factor here is stress. The fact that in Finnish the stress is always on the first syllable, in English and Swedish only mostly on the first syllable, means that when learning a Germanic language Finns have lost an important clue for the discernment of word boundaries. There are other differences, too, connected with word boundaries, such as the existence of both initial and final clusters of consonants in Germanic words, but not in Finnish, and the existence of vowel harmony in Finnish. In a very interesting recent paper (Karlsson, 1977), Fred Karlsson has pointed out that the status of the word as a unit in Finnish is different from that in Germanic languages. Average Finnish words contain more semantic information than Swedish or English words (cf. talossammekin; in our house, too; också i vårt hus), and there are many means by which word boundaries are more clearly indicated in Finnish. This and other factors mentioned by Karlsson give the word a more important status as a unit in Finnish and other synthetic languages than in

analytic languages such as English or Swedish.

As far as the oral skills are concerned, the question of related vs. unrelated languages is not only a question of a genetic relationship between the language being learnt and the mother tongue. The phonetic relationship is probably even more important, though unfortunately little can be said with certainty about this topic. Impressionistically speaking, though, languages such as Finnish and Italian (or Finnish and Finland-Swedish, whose pronunciation and intonation has been strongly influenced by Finnish) do not seem to be as far from each other as, for instance, English, (Sweden) Swedish and French are from Finnish. (Some Englishmen, who know neither Finnish nor Italian, have had difficulties in determining which of these two languages they hear on the wireless.) There is, however, a very great number of variables that would have to be taken into account for a reasonably complete phonetic typology to be set up for, say, the languages mentioned above.

BIBLIOGRAPHY

Karlsson, F. (1977). "Morphotactic structure and word cohesion in Finnish". In Contrastive Papers (eds. K. Sajavaara & J. Lehtonen). Jyväskylä Contrastive Studies 4. University of Jyväskylä: 59-74.

Lehtonen, J. (1978). "Problems of measuring fluency and normal rate of speech". Paper read at the 5th International Congress of Applied Linguistics, Montreal.

Lehtonen, J. (1979). "Speech rate and pauses in the English of Finns, Swedish-speaking Finns, and Swedes". In this volume.

Linnarud, M. (1977). "Some aspects of style in the source and the target language". In Papers and Studies in Contrastive Linguistics, Vol. 7 (ed. J. Fisiak). Poznan: 85-94.

Palmberg, R. (1977). "Om finnars och finlandssvenskars engelska språkfel på olika nivåer". In Palmberg & Ringbom (eds.), 1977: 85-93.

Palmberg, R. (1979). "Investigating communication strategies". In this volume.

Palmberg, R & H. Ringbom (eds.) (1977). Papers from the Conference on Contrastive Linguistics and Error Analysis Stockholm & Åbo, 7-8 February 1977. Åbo: Meddelanden från Stiftelsens för Åbo Akademi Forskningsinstitut nr 19.

Ringbom, H. (1977). "Spelling errors and foreign language learning strategies". In Palmberg & Ringbom (eds) 1977: 101-111.

Ringbom, H. (1978a) "On learning related and unrelated languages". Moderna Språk 72:1, 21-25.

Ringbom, H. (1978b). "On the difficulty of English listening comprehension in Finland". Tempus 2, 6-9.

Ringbom, H. (1978c). "The influence of the mother tongue on the translation of lexical items". Interlanguage Studies Bulletin 3:1, 80-101.

Ringbom, H.& R. Palmberg (eds.) (1976). Errors made by Finns and Swedish-speaking Finns in the Learning of English. Åbo: AFTIL no. 5. Publications of the Department of English, Åbo Akademi.

Stendahl, C. (1972). The Relative Proficiency in their Native Language and in English Shown by Swedish Students of English at University Level. Projektet SPRENG. University of Gothenburg: Report 6.

Truus, S. (1972). Sentence Construction in Swedish and in English in the Writings of Swedish Students of English at University Level. A Pilot Study. Projektet SPRENG. University of Gothenburg: Report 7.